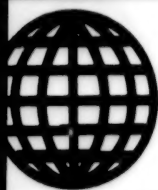


RS-TEP-93-026  
November 1993



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# ***JPRS Report***

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# **Epidemiology**

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# Epidemiology

JPRS-TEP-93-026

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4 November 1993

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## REGIONAL AFFAIRS

### Epidemiological Reports for 20 - 26 Sep

MB2609181893

[Editorial Report] Following is a compilation of reports monitored by FBIS Mbabane Bureau from 20 to 26 September concerning outbreaks of and reports on various diseases. Items are listed by country and disease. Source follows each item.

#### Angola

Cholera Deaths in Luanda—Health conditions in hospitals under the control of the Popular Movement for the Liberation of Angola's, MPLA, government are bad. Of the 2,800 cholera patients admitted to Josina Machel Hospital in Luanda—described as the best hospital in the hands of Eduardo Dos Santos' organization—186 have died of the disease recently. Sources in Luanda say most patients died because of a lack of medicine, medical attention, poor hygiene, and condition of food at the hospital. (Jamba Voz da Resistencia do Galo Negro in Portuguese 1200 GMT 24 Sep 93)

#### Botswana

HIV Positive—The senior medical officer for the Bobirwa sub-district, Dr. Ali Singano, says there are at least 500 HIV positive people in the area, with 200 in Selebi-Phikwe alone. Dr. Singano said 50 people have died from the disease. He noted that at least 15 students have tested HIV positive at Selebi-Phikwe Secondary School and Makhubu, Meepong and Boikhutso community junior secondary schools. He said at least five teachers have also tested HIV positive in Selebi-Phikwe. Dr. Singano said 25 children under five years of age have tested HIV positive and three have died. (Gaborone Radio Botswana Network in English 0510 GMT 21 Sep 93)

AIDS—The senior medical district officer in the Chobe district said HIV infections and AIDS cases are rapidly increasing in the district with about 1,155 adults between the ages of 15-49 affected. Speaking at a one-day AIDS update in Kasane, he said about 13 people have already died of AIDS in the district. He said about one out of six expectant women and one out of three men with sexually transmitted diseases are infected with the HIV virus in the district. (Gaborone Radio Botswana Network in English 1110 GMT 23 Sep 93)

Leprosy—Leprosy is reported to be highly prevalent in the northwest district, with 11 patients currently under treatment in Maun and the surrounding areas. This was disclosed by the Maun-based district officer Mr. Jabulane Toto, who said five new leprosy cases were identified in the Maun subdistrict last year, bringing the total number of cases to 25. He said statistics showed that there is approximately the same number in Okavango, a few cases in Chobe, and very few cases in the central district. Mr. Toto said the Ministry of Health, together

with the Lions Club, conducted a survey on the prevalence of leprosy in the northwest district in July and August 1991, culminating in the establishment of the National Leprosy Control Program, which is currently being implemented by the government. This program, he said, has been integrated in the existing Tuberculosis Control Program for better implementation. (Gaborone Radio Botswana Network in English 1910 GMT 23 Sep 93)

#### Mozambique

Malaria—47 people, mostly children, have died of malaria at Tungo in Mabote District over the past 3 months. The outbreak of malaria is also spreading to the two neighboring villages. (Maputo Radio Mozambique Network in Portuguese 1730 GMT 20 Sep 93)

Syphilis—In Gorongosa District, Sofala Province 16 new born babies die every month because of syphilis, a sexually transmitted disease. The Gorongosa District health director said that such deaths are registered at the local maternity, women suffering from this disease come mainly from areas under the control of the Mozambique National Resistance. (Maputo Radio Mozambique Network in Portuguese 1730 GMT 21 Sep 93)

Cholera in Cabo Delgado Province—At least 22 people died of cholera in Chiure District, Cabo Delgado Province this month. Reports from Pemba say another 15 people affected by the epidemic have been admitted to Chiure Town's health center. (Maputo Radio Mozambique Network in Portuguese 1030 GMT 20 Sep 93)

#### Namibia

Meningitis in Caprivi—Health officials have confirmed the outbreak of meningitis, saying that since July 1993, "some 30 cases of meningitis have been reported." Doctors attribute the attacks of meningitis to "an outbreak of the disease in the Sisheke area of Zambia, which borders Caprivi." Areas east of Katima Mulilo have reportedly been most hit by the disease. (Windhoek NEW ERA in English 9-15 September pp 1, 2)

AIDS in Caprivi Region—The AIDS coordinator for the Caprivi region says although the number of AIDS cases seems to increase, people are starting to realize the dangers of the disease. He said traditional healers have also started cooperating in the fight against the disease by using more hygienic instruments. A total of 587 AIDS cases have been diagnosed at the Katima Mulilo hospital since last year. (Windhoek Namibian Broadcasting Corporation Network in English 1900 GMT 22 Sep 93)

AIDS in Okavango Region—At least 8 people have died of AIDS and more than 100 have been identified as HIV positive in the Okavango region since the beginning of this year. This was confirmed by the health educator at the Rundu State Hospital, (Dieter Steinsberg). He noted that six people died of AIDS at the Rundu Hospital last year, while only four died of the disease in 1991. (Steinsberg) estimates that there may be more than 3,000 AIDS

carriers in the region at present. (Windhoek Namibian Broadcasting Corporation Network in English 1900 GMT 24 Sep 93)

#### **Zambia**

**Meningitis**—An outbreak of meningitis in the Serenji and Kabwe Districts of Zambia's Central Province has claimed 10 lives so far. A team of medical experts has been sent to the area in an effort to contain the disease. The authorities attribute the outbreak to an influx of travelers from the Copperbelt, where the disease was first reported 2 months ago. (Johannesburg Channel Africa Radio in English 1100 GMT 22 Sep 93)

#### **Zimbabwe**

**AIDS in Prisons**—Zimbabwe Justice Minister Emmerson Mnangagwa said on 22 September that Aids-related diseases had "killed 130 prisoners in the country's jails" since the beginning of 1993. Mnangagwa told Parliament 223 prisoners had died in jail so far this year, but he rejected a report claiming rampant sexual abuse, food shortages, poor health facilities, disease, overcrowding and torture by prison officers. (Johannesburg SAPA in English 0152 GMT 23 Sep 92)

#### **Roundup of Disease Reports for 22 - 30 Sep**

AB0410125393

[Editorial Report] The following is a compilation of disease reports monitored in FBIS Abidjan Bureau and EAU coverage areas. Source information is given in parentheses at the end of each item.

#### **Chad**

A measles and whooping-cough epidemic in Abou-Deia in Salamat prefecture has left 150 children dead. 132 other cases have been recorded. A medical team has been dispatched to the area and a vaccination campaign has been launched. [N'djamena Radiodiffusion Nationale Tchadienne Radio in French 1900 GMT 22 Sep 93]

#### **Cote d'Ivoire**

A workshop on the second five-year plan on the fight against AIDS was declared open in Yamoussoukro on 27 September 1993 by the minister of health, Prof. Alain Ekra. The seminar is aimed at defining priorities and strategies to fight the disease during that period. As of now, the number of Ivorians affected by the HIV virus is estimated at 640,000. [Abidjan FRATERNITE MATIN in French 28 Sep 93 p 6]

#### **Ghana**

The Ministry of Health has announced that some people are going around the country immunizing people illegally against tetanus and yellow fever for a fee. A Ministry of Health statement stresses that all vaccines given by the ministry are free, with the exception of

vaccines for international travel. [Accra Ghana Broadcasting Corporation Radio Network in English 0600 GMT 22 Sep 93]

The PEOPLE'S DAILY GRAPHIC reports that there is an upsurge in strange diseases in rural communities. Yaws, believed to have been eradicated some decades ago, has resurfaced in some parts of the country, almost unnoticed. The Buruli ulcer disease also devastated many parts of the Amansie-West District before the magnitude of its scourge came to the notice of the public health authorities. Elephantiasis must also be added to the increasing list of medical problems which have reached high levels in rural areas in recent times. [Accra Ghana Broadcasting Corporation Radio Network in English 0600 GMT 23 Sep 93]

#### **Kenya**

The Luo cultural practice of "cutting the cord" should be banned because it is worse than wife inheritance, in which widows become married to a member of their late husband's family. The practice is a major contributory factor in the spread of HIV/AIDS in the province. At the HIV/AIDS workshop taking place at a Kisumu hotel, chaired by Nyanza Provincial Commissioner Joseph Kaguthi and Western Provincial Commissioner Yusuf Haji, the participants noted that "cutting the cord," a sexual ceremony where a wife who has lost her husband is compelled by the tradition to physically have a sexual relationship with a weird person before she can be inherited by her in-laws or a member of the clan, must be stopped forthwith. During the workshop, wife inheritance was defended by the majority of speakers, who said that failure to do so would encourage the widows to move about freely and to spread the disease indiscriminately. The workshop, cosponsored by the Ministry of Planning and National Development and the UN Development Program, suggested that persons who die from AIDS should have their burial and death certificates depict the disease AIDS instead of covering up with diseases such as tuberculosis, pneumonia, meningitis, and typhoid. The manager of the national AIDS committee, Dr. Jimbo, disclosed that blood donor banks had discouraged blood donation from prisoners and Armed Forces personnel because research had proved that most of them suffered from HIV-AIDS. [Nairobi KNA in English 0640 GMT 22 Sep 93]

#### **Togo**

Associations in the country are up in arms against AIDS. Within a week, three seminars have been held in Lome and elsewhere in the country to inform and train people about AIDS. In Togo, the latest figures published at the end of 1992 indicate that there are 2,064 AIDS cases. The rate of infection is spreading at four percent. Associations in the country are worried about this and have resumed the fight against AIDS by mounting information and training campaigns. [Lome Radio Lome in French 1230 GMT 28 Sep 93]

### **Epidemiological Reports for 27 Sep - 3 Oct**

MB0310170893

[Editorial Report] Following is a compilation of reports monitored by FBIS Mbabane Bureau from 27 September to 3 October concerning outbreaks of and reports on various diseases. Items are listed by country and disease. Source follows each item.

#### **Mozambique**

Bloody diarrhea in Cabo Delgado Province—"A total of 38 people have died of diarrhea with traces of blood in the Montepuez, Ancuabe, and Chiure Districts of Cabo Delgado Province. Our correspondent reports that the causes of the disease are not yet known." (Maputo Radio Mozambique Network in Portuguese 1030 GMT 2 Oct 93)

#### **South Africa**

Bacterial Infection—Doctors at Baragwanath Hospital say three children have died at the hospital after a life-threatening bacterial infection, resistant to many antibiotics, broke out over the weekend. Two other children are seriously ill. The unit has been closed, and no new patients are being admitted until the infection has been cleared. Six children have been treated and three are under observation. Doctors described the infection-resistant *klebsiella* as a super-bug that has become resistant to most antibiotics. (Johannesburg Channel Africa Radio in English 1100 GMT 28 Sep 93)

#### **Zimbabwe**

Tuberculosis, Cholera in Harare—"More than 730 cases of tuberculosis were reported at Harare City Council's two infectious diseases hospitals between January and March this year, an average of 243 a month or almost 3,000 a year. Of the cases reported 70 percent were male." The health services director reports that "264 of the cases had been diagnosed as sputum positive pulmonary TB and 42 as sputum negative pulmonary TB." Twelve cases of cholera were also reported during the same period. (Harare THE HERALD in English 25 Sep 93 p 1)

### **Roundup of Disease Reports for 2 - 7 Oct**

AB1210122693

[Editorial Report] The following is a compilation of disease reports monitored from FBIS Abidjan Bureau coverage area. Source information is given in parentheses at the end of each item.

#### **Chad**

The cabinet met on 7 October under the chairmanship of the head of state, President Idriss Deby. The minister of health briefed the meeting on the vaccination campaigns he undertook in the Salamat region, which is currently affected by an epidemic of meningitis, measles, and

whooping cough. The meeting called on the health minister to take the necessary measures to prevent the spread of the epidemic, to continue the vaccination of the population, and to send drugs to the affected area. The meeting also called for the mobilization of national as well as international resources to fight the epidemic. [N'djamena Radiodiffusion Nationale Tchadienne Radio in French 1900 GMT 7 Oct 93]

#### **Cote d'Ivoire**

A member of the Ivorian Commission for AIDS Control has stated that 14,655 AIDS cases have been recorded in the country for a population of 12 million. The number of cases rose from two in 1985 to an annual average of 1,000 between 1986 and 1988. It has tripled to 3,000 since 1989. Dr. Benoit Soro, an eminent epidemiologist has warned that unless something is done about the situation, there will be 935,315 new cases and 282,419 motherless children in 1998. The infection rate among pregnant women in rural areas was 8 percent in 1983 but among pregnant women in urban areas it rose from 10 percent in 1987 to a current 16.2 percent. [Abidjan FRATERNITE MATIN in French 4 Oct 93 p 5]

#### **Nigeria**

In Lagos State, a bill to regulate blood donations and transfusions has been signed into law by Governor Michael Otedola. Known as the Prevention of Transmission of AIDS Through Blood Transfusion Bill, the bill seeks to check the spread of the dreaded AIDS. The bill makes it an offense for any doctor operating within Lagos State to transfuse blood into a patient unless such blood has been tested and found to be HIV negative. It recommends a fine of 10,000 naira or a term of six months imprisonment for offenders and 50,000 naira for companies and hospitals. [Lagos Radio Nigeria Network in English 0600 GMT 6 Oct 93]

#### **Sao Tome**

An outbreak of dysentery is sweeping Sao Tome and Principe and has killed up to 500 people. A government health official told a news conference in Sao Tome on 2 October that at least 3,000 people had suffered from dysentery over the last three months and that about 500 people had already died from the disease. The head of an emergency commission set up to deal with the dysentery outbreak, Mr. Lima, said that the three main hospitals were overflowing with patients and were turning people with other illnesses away. He appealed to the international community for medicine and laboratory equipment to fight the epidemic. The authorities in Sao Tome believe that the dysentery bacteria entered the country in imported food products. [London BBC World Service in English 1705 GMT 2 Oct 93]

### **Epidemiological Reports for 4 - 10 Oct**

MB1010185093

[Editorial Report] Following is a compilation of reports monitored by FBIS Mbabane Bureau from 4 to 10

October concerning outbreaks of and reports on various diseases. Items are listed by country and disease. Source follows each item.

#### Angola

Measles—"Angolan health authorities report that a measles epidemic has killed more than 2,000 people in Luanda in the first six months of 1993. The source stated that most of the victims were children up to the age of nine." (Maputo Radio Mozambique Network in Portuguese 1730 GMT 5 Sep 93)

#### South Africa

Measles, Tuberculosis—"The Department of National Health and Population Development reports a decrease in the number of measles cases in the eastern Cape this year. SABC [South African Broadcasting Corporation] radio news reported on Monday....During 1992, eastern Cape health authorities had been notified of 1925 cases of measles, but in 1993 only 280 cases had been reported. By contrast, tuberculosis was increasing alarmingly, with an estimated 780 cases reported in the eastern Cape monthly." (Johannesburg SAPA in English 1412 GMT 4 Oct 93)

Cholera—"There are fears of an outbreak of cholera at the Khokhozi squatter camp near Fochville on the west Rand. Four thousand squatters have been living without proper sanitation for almost a week since the heavy rains in the area." (Johannesburg SABC TV 1 Network in English 1800 GMT 9 Oct)

#### Roundup of Disease Reports for 11 - 22 Oct

AB2510123093

[Editorial Report] The following is a compilation of disease reports monitored from FBIS Abidjan Bureau and EAU coverage areas. Source information is given in parentheses after each item.

#### Burkina Faso

Burkina's health minister has disclosed in an interview with the OBSERVER newspaper that 450,000 Burkinabes are seropositive, with the situation in Ouagadougou and Bobo Dioulasso being particularly serious. The minister said 64 percent of prostitutes in Ouagadougou, as well 43 percent of those in Bobo Dioulasso, are seropositive. The minister stated that 7.5 percent of pregnant women in Ouagadougou and 8 percent in Bobo Dioulasso are seropositive. He added that 14.5 percent of pregnant women in Gawa are also seropositive. [Ouagadougou Radiodiffusion-Television du Burkina Radio in French 1300 GMT 18 Oct 93]

#### Cote d'Ivoire

A workshop on guinea worm opened in Abidjan today with the objective being to eradicate this disease by 1995. There has already been a considerable reduction recorded in cases of guinea worm. In Nigeria cases have

dropped from 650,000 in 1989 to 200,000 in 1993. The number of cases has fallen in Ghana from 160,000 to 30,000 cases, while Cameroon has reduced the number of cases from hundreds to tens of cases within three years. [Abidjan La Chaîne Une Television Network in French 2000 GMT 11 Oct 93]

#### Ghana

The minister of health, Commodore Steve Obimpeh, has announced that despite control activities being implemented to check the spread of AIDS, the situation in the country is worsening. In a statement presented to Parliament today, the minister said that, as of the end of April, 11,044 cases of the disease were officially reported. Commodore Obimpeh said the recent World Health Organization's report ranked Ghana as the 11th in Africa with the highest reported AIDS cases. In the West African subregion, Ghana ranked second. This situation, the minister said, calls for the intensification of the educational campaign on the prevention of the disease. Consequently, the Ministry of Health has declared November as National AIDS Awareness Month. [Accra Ghana Broadcasting Corporation Radio Network in English 1300 GMT 15 Oct 93]

The Christian Council of Ghana has joined in the crusade to stimulate public awareness of the seriousness over AIDS and the need for the public to prevent its spread. Over 80 pastors and church leaders are attending a seminar in Accra to find out how best the issue can be tackled. Despite educational campaign to create awareness of the disease, statistics available show that AIDS is fast spreading throughout the country. AIDS was first reported in Ghana in 1986. Various attempts have been made by government to draw public attention to this deadly disease but today over 11,000 cases have been recorded countrywide. The coordinator of the Ghana AIDS Control Program, Dr. Felix Antwi, quoted a World Health Organization report on AIDS which says that as of June 1993, Ghana was No. 11 in sub-Saharan Africa, and second after Cote d'Ivoire in West Africa. [Accra Ghana Broadcasting Corporation Radio Network in English 0600 GMT 21 Oct 93]

#### Kenya

Kenyan scientists are believed to have found what they believe are 25 cases of natural immunity to the Human Immune-deficiency Virus (HIV), the precursor to AIDS, among a large group of Kenyan prostitutes. THE GUARDIAN newspaper reported Tuesday.

A Kenyan-Canadian research team, which has been studying 1,700 prostitutes in a Nairobi slum for 8 years, believes it has established a genetic link between the 25 women. [Paris AFP in English 0300 GMT 19 Oct 93]

#### Nigeria

The Federal Government has expressed concern over the rapid spread of the deadly disease, Acquired Immune Deficiency Syndrome, AIDS. The government's worry



over the development was expressed in Lagos today by the secretary for health and social services, Prince Julius Adulesi Adeluye while briefing newsmen on the state of the country's health sector. He said that HIV infection has increased rapidly. From two known cases in 1986, the figure of known AIDS cases totaled 900 in September of 1993. He said that a sporadic Yellow Fever epidemic had also increased in frequency among the populace. [Lagos Radio Nigeria Network in English 1800 GMT 15 Oct 93]

#### Togo

The number of cases of AIDS is on the increase in Togo. There were 2,078 cases of AIDS recorded nationally. [Lome Radio Lome in French 1230 GMT 10 Oct 93]

A second training seminar to fight sexually communicable diseases and AIDS has ended. Participants noted that the AIDS problem is assuming alarming proportions in Africa, and that Togo has not been spared. From 1987 to the end of 1992, about 2,104 cases were recorded. The most affected people are aged between 15 to 40 years. Women are prematurely affected by the disease but male cases are predominant. In Togo both HIV I and II viruses are encountered in over 91 cases but HIV I is more frequent. The prevalence of the disease in the population is 4 percent. [Lome Radio Lome in French 1900 GMT 23 Oct 93]

#### Zaire

In the Kasai Occidental area, particularly in the Shaba refugees camps, 13,715 deaths resulting from malaria, diarrhea, and bronchitis have been recorded to date. These figures, given by the newspaper FORUM, cover the period from October 1992 to 31 August 1993. [Kinshasa Voix du Zaire in French 1800 GMT 11 Oct 93]

#### Epidemiological Reports for 18 - 24 Oct

MB2410182393

[Editorial Report] Following is a compilation of reports monitored by FBIS Mbabane Bureau from 18 to 24 October concerning outbreaks of and reports on various diseases. Items are listed by country and disease. Source follows each item.

#### Botswana

AIDS—"The senior medical officer with the Francistown Town Council, Dr. Thandabantu Hlangabeza, says about 92,000 people in Botswana are HIV positive....Dr. Hlangabeza said Francistown was the most hard hit area with 12,000 people infected, followed by Serowe-Palapye with 20 percent, and Gaborone with 19 percent. [figures as heard]" (Gaborone Radio Botswana Network English 1110 GMT 18 Oct 93)

#### South Africa

AIDS—"Another 488 AIDS-sufferers have been recorded between April and September this year, according to the Department of National Health and Population Development....The highest incidence of people with AIDS was in the Natal-kwaZulu area, where 253 people were reported. This was followed by 60 people in the central Transvaal and 57 others in Venda. The mode of transmission most often reported was heterosexual contact with 382 (82 percent) people being infected in this manner. Thirty-five (eight percent) of the people were pediatric cases and the mode of transmission was unknown for 30 (seven percent) of the reported cases. It said the female to male ratio was almost one-to-one and it was the economically active group that was most affected, with at least 76 percent of the reported people with AIDS aged between 20 and 45." (Johannesburg SAPA English 0825 GMT 21 Oct 93)

#### Swaziland

AIDS—"The National AIDS Control Office in Swaziland says there are an estimated 30,000 Swazis who have been infected with the AIDS virus. The office says by the end of September there were 319 people with full-blown AIDS." (Umtata Capital Radio in English 1500 GMT 20 Oct 93)

#### Epidemiological Reports for 24 - 31 Oct

MB3110193593

[Editorial Report] Following is a compilation of reports monitored by FBIS Mbabane Bureau from 24 to 31 October concerning outbreaks of and reports on various diseases. Items are listed by country and disease. Source follows each item.

#### Mozambique

AIDS in Tete Province—Seven positive AIDS cases were detected last week in Tete Provincial Hospital. Four cases were detected among 24 people who donated blood in that hospital. Radio Mozambique's Tete correspondent says that AIDS and sexually-transmitted diseases cases are on the increase lately in Tete city clinics. The source said the cases increased following the return of Mozambican refugees from Malawi, Zambia, and Zimbabwe. (Maputo Radio Mozambique Network in Portuguese 1030 GMT 28 Oct 93)

Cholera in Tete Province—NOTICIAS reported today that more than 450 people died of cholera throughout the country between January and October. NOTICIAS quoted Health Ministry reports as stating that Tete Province is the most affected by the epidemics with 180 deaths. (Maputo Radio Mozambique Network in Portuguese 1030 GMT 28 Oct 93)

#### South Africa

TB—The incidence of tuberculosis in the eastern and western Cape has soared by over 60 percent in the past

year. Department of National Health and Population Development figures show that the number of TB cases in the eastern Cape alone have risen to 5,726 in the first 6 months of this year compared with 3,496 in the first half of last year. Ciskei and Transkei also show increases of between 12 and 20 percent. The department has declared TB "enemy number one" and has increased its TB budget from 27.7 million rand last year to 32.2 million rand this year. (Johannesburg SUNDAY NATION in English 24 Oct 93 p 5)

### Zambia

**Cholera**—In Zambia there is fear that another epidemic of cholera is on the way. Last year's outbreak of cholera, which killed more than 1,000 people in the country, was centered on the city of Kitwe, on the Copperbelt. Kitwe lost 500 people. (London BBC World Service in English 0600 GMT 29 Oct 93)

## GHANA

### Eastern District Reports Diseases Spread

94WE0032B Accra PEOPLE'S DAILY GRAPHIC  
in English 4 Aug 93 p 1

[Article by Kweku Tsen, Akyem Oda]

[Text] There has been a sudden increase in the spread of communicable diseases in the Birim South District of the Eastern Region.

Diseases like chicken pox and yaws which were assumed to have been eradicated by medical authorities have suddenly resurfaced and are spreading fast in the district.

Figures on contagious diseases recorded from January to June 1993 and released to the GRAPHIC by the Epidemiology Division of the Oda Government Hospital indicate the following: yaws 1,553 cases, diarrhoeal diseases 1,000, bilharzia 406, measles 436 and chicken pox 170.

Mr Paul Adwere, head of the unit told the GRAPHIC that the figures may be higher because a lot of people who contract such diseases go to private clinics for treatment.

He said the outbreak of diseases like yaws and diarrhoeal cases is due to the prevalence of unsanitary conditions and non-adherence to basic hygienic principles.

### Volta Region Combating Yaws Reemergence

94WE0032C Accra PEOPLE'S DAILY GRAPHIC  
in English 16 Aug 93 p 6

[Article by Tim Dzamboe, Okagyakrom-Buem]

[Excerpt] The Volta Regional Directorate of Health Services has launched a yaws control programme at Jasikan at the weekend to suppress the re-emergence of the disease.

In a speech read on his behalf by Mr Kwasi Aboagye, Deputy Regional Minister, the Regional Minister, Mr Modesto Ahiabile, said available statistics indicate that 1,160 cases of yaws have been reported from 10 out of the 12 districts in the region since 1991.

He said the figure represents five per cent of the national average.

Mr Ahiabile further said a survey on infectious yaws conducted in the Jasikan, Kadjebi and Hohoe districts from June 21 to 30, this year identified a total of 687 cases of which 407 were from Kadjebi, 237 from Jasikan and 72 from Hohoe.

With regard to age distribution, Mr Ahiabile stated that out of 4,170 cases surveyed nationally in 1989 those between 5 and 9 years constituted 45 percent of all cases whilst 33 percent of the cases were found in the age group between 10 and 14 years.

He, therefore, said nearly 80 percent of the cases were below 15 years of age, adding that boys were at a greater risk than girls in the ratio of two to one. [passage omitted]

### Significant Reduction in Diarrhoeal Diseases

94WE0032D Accra PEOPLE'S DAILY GRAPHIC  
in English 3 Aug 93 p 1

[Article by I.K. MacArthur]

[Text] Cases of diarrhoeal diseases have reduced significantly in the country in the last 6 years.

Whilst 276,998 cases were reported at health institutions in 1987, the figure for last year was 194,895.

This was disclosed by Dr Cornelia Atsytor, national programme manager for the control of diarrhoeal diseases in an interview with the GRAPHIC in Accra.

She gave the breakdown of figures of reported cases of diarrhoeal diseases for the six year period as, 1987—276,998, 1988—221,992, 1989—231,478, 1990—236,929, 1991—221,919 and 1992—194,895.

Dr Atsytor recalled that there was an outbreak of cholera in mid-1990 to January, 1992, but said "that notwithstanding, the trend shows an appreciable rate of decline over the years."

She attributed the decline to increased awareness of the correct management of diarrhoeal cases at home by mothers using oral rehydration salts and home based fluids.

Dr Atsytor said under the control programme which started in 1982, courses had been held for selected medical personnel in Kumasi, Sekondi and Accra who would in turn train others in the correct management of diarrhoea cases in the hospitals and clinics.

Two more courses, she said, would be held at Tamale and Sunyani in August and early 1994 respectively. [passage omitted]

## ZAMBIA

### 87 Deaths Countrywide From Meningitis

94WE0031A Lusaka *TIMES OF ZAMBIA* in English  
11 Aug 93 p 1

[Text] The public health department of Kitwe City Council has started to vaccinate residents as the number of meningitis patients at Kitwe central and Wusakile mine hospitals shot up to 46 with one death.

Council public relations officer Mr Francis Wasamunu said the council has distributed vaccines to different organisations to prevent the disease from spreading.

Mr Wasamunu said the council had given 1,000 vaccines to Kitwe Central, 1,000 to the mines and there was about 1,000 in stock for council clinics.

The vaccines would initially be prescribed to residents in high density areas which are prone to the disease.

Kitwe Central Hospital board of management executive director Dr Golden Bolla said the number of patients at the hospital had shot up from 33 on Monday to 36 yesterday. Wusakile mine hospital acting deputy chief medical officer Dr Henry Mugala said the number rose from five to 10 with one death.

At Kitwe there have been six deaths since the disease struck. Wusakile had nine deaths.

Of the 36 patients at Kitwe, 12 are adults and 24 are children. At Wusakile of the 10, two are children and eight are adults.

Meanwhile, seven more people have died from meningitis on the Copperbelt and Kabwe Rural. Another 187 are still under treatment in various hospitals.

Ministry of Health epidemiologist Dr Roy Chimba said in Lusaka yesterday in the last 48 hours four deaths were recorded at Ndola Central Hospital and one at Arthur Davison Hospital.

The two hospitals alone had 145 patients, making Ndola the town with the highest number of victims at present.

Wusakile hospital by yesterday recorded three admissions and 12 patients under treatment.

Dr Chimba said three new cases were reported at Mwachisompola hospital in Kabwe Rural where two of the victims died.

A total of 87 deaths had so far been recorded countrywide since the outbreak was first reported last month.

The outbreak at Mbala Secondary School was caused by overcrowding as students in examination classes from Isoka secondary school were transferred to Mbala as their school was closed for unknown reasons.

And the Ministry of Health is trying to identify the source of meningitis in Lusaka before embarking on a vaccinations exercise.

Dr Chimba said vaccines were sent to the Copperbelt as soon as the source of meningitis was identified.



**Annual Report on Infectious Diseases in 1992**

93WE0329B Beijing JIAN KANG BAO in Chinese  
5 Mar 93 p 1

[Article by reporter Zheng Lingqiao [6774 7227 1564]: "Reduction in Total Number of Infectious Diseases in China in 1992, Epidemic Perils Still Exist, There Can Be No Blind Optimism"]

[Text] The results of statistics on national epidemic data reported to higher authorities recently by the Ministry of Public Health show a substantial reduction in 1992 of the incidence of total reports of category A and B infectious diseases, death rates, and case fatality rates in China compared to 1991. Among the 24 types of reported diseases, there were reductions to varying degrees for three-fourths of the diseases. Regarding this, Department of Health and Epidemic Prevention director Dai Zhicheng [2071 1807 3397] reminded of the need for a sober understanding of the epidemic situations in all areas at the recently held National Public Health and Epidemic Prevention Conference and said there can be no blind optimism.

According to statistics for epidemic data reported to higher authorities from January to December 1992 by China's 30 provinces, there were a total of 2,575,301 cases of category A and B infectious diseases with 5,280 cases of fatalities, equal to a total reported infection rate of 222 per 100,000, a total reported death rate of 0.4552 per 100,000, and a total reported case fatality rate of 0.205 percent, which were, respectively, 21.97 percent, 45.63 percent, and 30.33 percent reductions from 1991.

Among the 24 types of categories A and B infectious diseases, the number of incidences for 18 types of infectious diseases with the exception of cholera, scarlet fever, measles, plague, syphilis, and AIDS dropped compared to 1991. They included reductions of more than 50 percent for dengue fever, brucellosis, leptospira disease, and rabies. There were reductions of 20 to 50 percent for anthrax, malaria, diphtheria, dysentery, poliomyelitis, typhoid fever and paratyphoid fever, Japanese encephalitis, typhus, and kala-azar.

The relevant persons in preventive medicine circles stated that a reduction in incidence rates for 18 types of diseases in China is certainly something that is seldom seen historically, but concrete analysis of the epidemic disease situation permits the discovery of many pitfalls. For example, while there was a 34.03 percent reduction in the incidence rate for poliomyelitis, there was a 14.25 percent increase in the number of counties (wards) with incidences compared to 1991, with only Beijing and Shanghai Municipalities reporting no cases. The resurgence of measles was third among the types of diseases, falling only behind hepatitis and dysentery incidence rates. Plague epidemic source areas were also active, with 35 cases reported in 1992, a number of reported cases seldom seen in recent years.

**Malaria Situation in the People's Republic of China in 1992**

54004801B Shanghai ZHONGGUO  
JISHENGCHONGXUE YU JISHENGCHONGBING  
ZAZHI [CHINESE JOURNAL OF PARASITOLOGY  
& PARASITIC DISEASES] in Chinese Vol 11 No 3,  
Aug 93 pp 161-164

[English abstract of article by Advisory Committee on Malaria, Ministry of Public Health]

[Text] According to the case reporting system, the number of malaria cases accounted for 73,955 in the nation (Taiwan not included) in 1992, the incidence being 6.391 per one hundred thousand, and the lethal cases caused by malaria were 52 in number. In comparison with the data of 1991, the case number declined by 27,681 and the incidence, by 27.99 percent. In areas where there were no reported malaria cases or the incidence was below 1 0/000, the residents totaled 1.0566 billion, whereas incidence of 1-10 0/000 was noted in areas with people of 84.5 million, and 10.1-100 0/000 in areas with people of 16 million. In a border city of Yunnan where resided merely 10,000 people, the incidence was more than 100 per 10,000.

In the southern part, except for the resurgence of the disease in Guangxi, a decrease in the incidence at various extents was demonstrated in the other 6 provinces. Nonetheless, incidence fluctuation was revealed in some prefectures and cities, and the occurrence of several focal outbreaks was also recorded. Malaria cases in the preceding 7 provinces/autonomous region totaled 55,896, amounting to 75.6 percent of the entire number of malaria cases in China.

In the middle and eastern parts, apart from the increase in case number due to the expansion of exogenous cases in Hunan, steady diminution of malaria incidence was evidenced in the other 8 provinces/municipality. The reported malaria cases for these areas were 17,819, accounting for 24.1 percent of the total cases in the country.

In the north and northwestern parts, 240 malaria cases were reported from the involved 14 provinces/autonomous region/municipality, equal to 0.3 percent of the total malaria cases in the country.

Malaria case detection was conducted in 1,262 counties of 18 provinces/autonomous region/municipality where resided 486 million people. A total of 15,957 million febrile patients were subjected to blood examination at a rate of 3.3 percent in the population, the case number positive for parasites was 72,026 with a mean positive rate of 0.45 percent. Of which, 8,738 were found to contract *Plasmodium falciparum* (mixed infection with *Plasmodium vivax* included), corresponding to 12.13 percent of the total positive. Focused examinations on special population and migratory people of 562,660 in 15 provinces/autonomous region/municipality disclosed 5,207 were positive for malaria parasites with a parasite

rate of 0.93 percent, of which, 617 persons were carriers of *Plasmodium falciparum*, accounting for 11.85 percent of the positive cases.

*Falciparum* malaria was prevalent in 55 counties of Hainan, Yunnan and Guangxi provinces/autonomous region. Exogenous *Falciparum malaria* cases were distributed in 111 counties of 10 provinces/autonomous region. A total of 9,071 *Falciparum malaria* patients and carriers were detected in Hainan and Yunnan, amounting to 96.96 percent of the same cases in the country. A quartan malaria case caused by blood transfusion was reported in Guangdong.

### **Malaria 'Basically Eliminated' in Zhejiang Province**

OW2510134493 Beijing XINHUA in English  
1254 GMT 25 Oct 93

[Text] Hangzhou, October 25 (XINHUA)—The Ministry of Public Health has claimed recently that malaria has been basically eliminated among the 40 million residents of southeastern Zhejiang Province.

As one the worst-stricken provinces in China in the 1950s in terms of malarial infections, Zhejiang has devoted great efforts to the prevention and treatment of the disease over the past four decades.

In the 1950s, the incidence of malaria in Zhejiang was 766.50 per ten thousand.

In the late 1980s, with the development of anti-malaria medicines and the improvement in sanitation in the rural areas, the incidence of malaria decreased to 9.08 per ten thousand. Between 1990 and 1992, the rate was lower than 0.6 per ten thousand.

A 5-year investigation conducted from 1987 to 1991 in 71 counties and cities in the province showed that malaria has been basically eliminated.

### **Comparison of the Transmission Dynamics and the Control Effects Between Malaria and Filariasis by Using Mathematical Model**

54004801C Shanghai ZHONGGUO  
JISHENGCHONGXUE YU JISHENGCHONGBING  
ZAZHI [CHINESE JOURNAL OF PARASITOLOGY  
& PARASITIC DISEASES] in Chinese Vol 11 No 3,  
Aug 93 pp 185-189

[English abstract of article by Wu Kaichen [0702 7030 3819] of the Institute of Parasitic Diseases (WHO Collaborating Center for Malaria, Schistosomiasis and Filariasis), Chinese Academy of Preventive Medicine, Shanghai]

[Text] By dynamic modeling based on Ross & MacDonald's mathematical model, the characteristics of rapid transmission of malaria and slow transmission of filariasis was compared. The dynamic mechanism showed that the infection efficiency in filariasis, namely, the

probability of becoming infected in man by one infective bite of mosquito, was much lower than that in malaria; hence the vectorial capacity or transmission velocity in filariasis was also markedly lower than that in malaria. Since the intensity of infection i.e. the microfilaria density can largely affect the infection efficiency in filariasis, drug treatment, especially using DEC-medicated salt can reduce the intensity of infection and the infection efficiency, thus interrupting transmission finally. However, for malaria, only when the measures for mosquito vector control (including mosquito proofing) are taken as a priority to reduce the vectorial capacity or transmission velocity, malaria can then be controlled subsequently. These theoretical analyses are being demonstrated by the practice for malaria and filariasis control in China, which could also be used as a theoretical base for enlightening the successful filariasis control strategies in China.

### **Studies on Distribution and Behavior of *Anopheles minimus* and Its Role of Malaria Transmission in Hainan Province at Present**

54004801A Shanghai ZHONGGUO  
JISHENGCHONGXUE YU JISHENGCHONGBING  
ZAZHI [CHINESE JOURNAL OF PARASITOLOGY  
& PARASITIC DISEASES] in Chinese Vol 11 No 2,  
May 93 pp 120-123

[English abstract of article by Wu Kaichen [0702 7030 3819], Deng Da [6772 6671], et al. of the Institute of Parasitic Diseases, Chinese Academy of Preventive Medicine (WHO Collaborating Center for Malaria, Schistosomiasis and Filariasis), Shanghai]

[Text] *Anopheles minimus* was once a main malaria vector in Hainan Island and had been eliminated basically through the campaign of indoor residual spraying launched in 1959. It again became an incriminated vector of some focal malaria outbreaks in recent years. The present study was conducted in a selected county—Danxian and a typical hilly area—Feibar in the west part of Danxian county in 1989-1990.

*An. minimus* was found in 50 percent and 62.5 percent of the surveyed sites at mountainous and hilly area of Danxian county, but not found in coastal region. *An. minimus* was found in all 18 sites surveyed in Feibar district, constituting 52 percent of anopheline composition. Man-biting rate made by human-baited collection was 3.2 before midnight and 38.2 when collected through whole night in some sites. However, the behavior characteristics of *An. minimus* has changed. It has become exophilic, exophagic, and has an equal preference for man and cattle. The vectorial capacity of *An. minimus* estimated by quantitative data was in accord with malaria infection rate in Feibar district, and the malaria infection rate among the inhabitants in three types of residential quarter with different socioeconomic conditions. Malaria infection rates of residential quarter of land-reclamation outcomers, villagers and state farm

residents were 10 percent, 2.9 percent and 0.5 percent, respectively during 40 days from July to August 1990.

Owing to the fact that *An. minimus* has become a secondary vector only next to *An. dirus*, with a wide

range of distribution and a considerable different characteristics in behavior compared to that before spraying campaign, it is suggested that a malaria control program must be seriously planned to adjust the new problem of malaria epidemiology in Hainan Province.

## REGIONAL AFFAIRS

### Roundup of Epidemiology Reports for 10 - 28 Sep

BK0210090793

[Editorial Report] The following is a compilation of summaries of foreign media reports on Southeast Asian and South Asian Epidemiology developments monitored by Bangkok Bureau from 10 to 28 September 1993. Sourcelines are given in parentheses after each item.

#### India

##### Increasing Number of Cancer Cases Reported

Each year more than 7,000 cancer cases are reported in Delhi and at any given time there are at least 1,500,000 persons suffering from the disease throughout the country. The cancer problem in India is acute and growing in proportion as more and more persons are afflicted by it. Presently, there are 300,000 cancer-related deaths annually, with the number expected to double by the turn of the century. However, in comparison with the vast number of patients, the facilities available for treatment are far from adequate as government hospitals are not fully equipped to accommodate the increasing number of patients. More than 25,000 persons in Delhi require treatment at any given time. (New Delhi INDIAN EXPRESS in English 10 Sep 93)

##### Cholera Kills Eighty-Nine in Calcutta

A cholera epidemic in Calcutta has killed seven more people, increasing the death toll from the month-old outbreak to 89, and leaving at least 350 people requiring hospitalization. A government investigation has blamed a filthy canal in an eastern suburb which slum-dwellers use to wash utensils, bathe, and even drink. A cholera epidemic earlier this year killed 900 people in the state of West Bengal. (Hong Kong AFP in English 1223 GMT 28 Sep 93)

##### Gastroenteritis Outbreak in Calcutta; 370 Hospitalized

In Calcutta, at least seven people have died due to gastroenteritis in the last 2 days. According to reports, at least 370 people have been admitted to hospitals in the city following the outbreak of the disease. (Delhi All India Radio Network in English 0435 GMT 28 Sep 93)

#### Malaysia

##### Health Minister on Latest AIDS, HIV Figures

A total of 6,588 HIV carriers and 95 AIDS cases have been identified since the first case was detected in the country 8 years ago. The health minister, who has urged Malaysians to practice a healthy lifestyle, said 58 deaths from AIDS have been recorded up through August this year. He said the actual number of those infected with HIV could be much higher as at least three cases went undetected for every known case. (Kuala Lumpur NEW STRAITS TIMES in English 22 Sep 93)

#### Vietnam

##### Hanoi Records First HIV Positive Case

A 42-year-old truck driver has been identified as the first Hanoi resident to test positive for the HIV virus. The trucker's blood was among an undisclosed number of samples sent for testing in Japan. More than 700 people have tested HIV-positive in Vietnam, though health officials say the real number of cases is probably much higher since testing has so far been limited mostly to prostitutes and intravenous drug users. Most of those testing positive for the virus have been drug users in Ho Chi Minh City. (Hong Kong AFP in English 0852 GMT 19 Sep 93)

##### First HIV-Positive Cases Detected In Central Highlands

The Committee for Prevention and Control of AIDS of Binh Dinh Province recently detected four HIV-positive cases. Three of the people, who are residents of Pleiku town of Gia Lai Province, are all male and known to be drug users. They are the first residents of the central highland region known to be HIV-carriers. (Hanoi Voice of Vietnam Network in Vietnamese 1100 GMT 24 Sep 93)

##### Dong Nai Provides Antimalaria Equipment

In the framework of an antimalaria program, the Dong Nai Province Red Cross Association recently provided free mosquito nets to needy families at Phu Lap, Nui Tuong, and Phu An villages in Tan Phu District and Phu Hoa village and Dinh Quan town in Dinh Quan District. The number of people affected by malaria in these five areas accounts for 60 percent of the local population. The Vietnam Red Cross Association has shipped 2,000 mosquito nets and a large quantity of antimalaria medicine valued at 57 million dong to Dong Nai Province. (Hanoi Television Network in Vietnamese 1200 GMT 19 Sep 93)

##### Ha Giang Strengthens Antimalaria Program

Ha Giang medical centers and stations have treated over 5,000 patients suffering from malaria, and vaccinated 27,400 people against malaria so far this year. The province also distributed over 4,000 double-sized mosquito nets to people in the malaria-infested Districts of Xin Man, Hoang Xu Phi, Bac Quang, and Vi Xuyen. Compared with the same period last year, the number of malaria patients in Ha Giang this year decreased by 1.7 percent. (Hanoi Voice of Vietnam Network in Vietnamese 1430 GMT 21 Sep)

## CAMBODIA

### Health Ministry, WHO on Dengue Problem

94WE0044A BANGKOK BANGKOK POST INSIDE INDOCHINA in English 14 Sep 93 p 4

[Excerpt]—As if they didn't have enough problems, Cambodian health authorities this year have been

bracing for an epidemic of a potentially fatal illness new to the country. No, it isn't AIDS, but a virulent form of dengue fever.

Dengue haemorrhagic fever (DHF) was first identified in Manila in 1953 and in Bangkok in 1958. As far as anyone can tell, it didn't make its belated appearance in Cambodia until 1980 in Prey Veng.

The four viruses which cause dengue, even the 'simple' non-fatal variety, are all transmitted by two attractively striped kinds of the *Aedes* mosquito. The mosquitoes deposit their eggs in containers of clear water, most notably household water jars, and feed during daylight hours.

Coordinated by the health ministry's Centre for Hygiene and Epidemiology, with assistance and funding from various United Nations-affiliated agencies, the DHF control committee began preparing for an epidemic in February. Public health experts anticipated the worst in 1993 because it's the pattern of DHF to recur with increasing intensity every two or three years.

The last most serious outbreak in Cambodia was in 1990 when there were 7,000 hospital admissions and 339 deaths. In the past, the illness has peaked in August and September and tapered off in December.

Dr Un Pan, a health ministry official, projected that DHF admissions in Phnom Penh alone could reach 5,000 this year.

Michael MacDonald, an epidemiologist with the World Health Organisation (WHO), said that an aggravating factor is 'the revolution in transport in the past few years': as Cambodians travel more, they are bringing the virus along with them to previously untouched areas.

The campaign's education efforts include door-to-door leaflet drops, radio programmes and commercials, and video spots shown on television and at movie theatres. The central message is to cover and regularly clean out water jars.

MacDonald said that the biggest obstacle is getting people to change life-long habits. Those town dwellers who may know about the habits of malarial mosquitoes won't be concerned about the mosquitoes or eggs in their water jars, which previously have been harmless.

Similarly, parents have to be persuaded not to treat feverish children as they normally would by administering aspirin, which can make dengue worse. Instead, they are urged to bring the child (or themselves) to a clinic or hospital. [passage omitted].

The cruel irony of DHF is that virtually all its victims have previously survived a bout of simple dengue.

In Phnom Penh, the insecticide temaphos (trade name Abate) was introduced for the first time in heavily populated areas. Placed in water containers, it kills eggs

without affecting water safely. It was disseminated in offices and cinema halls and more than 32,000 homes got free samples.

For widespread use, however, the gravelly insecticide is too expensive, MacDonald said, though a dosage for a 200-litre jar for 3 months costs less than three baht.

Another thrust of the campaign is to improve medical care of DHF victims. MacDonald said that the DHF fatality rate 'should be about one percent or at least below five percent. Sometimes (in Cambodia), it's been 12 percent'.

Proper care does not require sophisticated technology or medical specialists. Provincial hospitals have been provided with more blood pressure cuffs.

## LAOS

### Malaria Outbreak in Champassak Reported

93WE0584A Vientiane PASASON in Lao 21 Aug 93  
p 1

[Text] Malaria continued to spread dangerously in some localities of Champassak District. It was reported from these localities that since 6 August 19 had died as a result of the serious outbreak of malaria in eight villages in area 4 of Nong Te in Champassak District of Champassak Province. Small children under 14 were more affected than others by the spread of this disease. The source also reported that so far 371 people had contracted malaria.

With regard to this problem the public health service of Champassak District sent medical cadres together with medicine and medical equipment to work with the medical personnel in the areas of Ban Nong Phot Village, Houai Na, and Ban Non Sa-at Village to block and eradicate the malaria which was spreading quickly. [This strain] had not been encountered before.

It was also reported that since the beginning of the year a team had been analyzing blood samples to check for malaria. They had been doing this in the area of Luang Prabang District, Chomphet [District], Xieng Ngeun [District], Pak Ou [District], Viang Kham [District], Nan District and Ngoi District. They had been able to take blood samples from 25,000 people who came to have their blood tested, and they had discovered 2,850 with malaria. Most of these people, 772, had the falciparum strain; 80 had the vivax strain.

During the same period public health officials in Xieng Kho District of Houa Phan Province sent medical personnel to work with the people of Ban Phe Village, Xiang Khoun Canton. They have completed a water purification system with assistance from UNICEF worth 3,750,000 kip and assistance from the Organization to Prevent Starvation worth 2,170,000 kip.



### Malaria Epidemic in Sepon Reported

93P30074A Vientiane PASASON in Lao 21 Jul 93 p 1

[Text]—(KPL) A Savannakhet news source reports a discussion on 13 July with Ketsavan, an official from Sepon Hospital, about the spread of malaria, with up to a 61.8-percent increase in the number of cases in several districts. Most of the patients were reportedly infected by falciparum. The hospital official said during the period from 15-30 May, 10 people have died from the disease.

There was another report that measles was spreading in six villages in the Kengkok area. Out of 278 children found to be infected, six have died. Furthermore, nine villages along Route 9 have reported diarrhea cases, and so far 30 people have died.

In Phin District, a news source reports that in May, there were 1,285 people with diarrhea in eight areas, including 92 villages, resulting in 46 deaths so far.

There was a report from Saignabouli Province that in mid-July, malaria has become a very severe problem, and one person has died in Ban Dong Louang in Phiang District.

According to the Sepon Hospital staff, the rate of malaria infection in the area is as high as 76.99 percent among 435 people tested, the majority of whom carries falciparum.

## THAILAND

### New Strain of Cholera Reported

#### Spread From India, Bangladesh

93WE0585A Bangkok THE NATION in English  
21 Aug 93 p a3

[Text] The director general of the Department of Communicable Disease Control yesterday admitted that a new strain of cholera has spread to Thailand.

He insisted that the Public Welfare Ministry was carefully keeping it under control.

Dr Prayoon Kunason said the new strain had spread from India and Bangladesh.

He identified the strain as *Vibrio Cholera* 0139, a strain of the non-o-one group which does not secrete visible toxins.

Deputy Public Health Minister Anek Tabsuwan, on Tuesday, and Deputy Director-General of the Department of Communicable Disease Control Pandit Chunasadasukul, on Wednesday, denied that the new strain of cholera had yet been detected in Thailand.

Prayoon said symptoms of this disease were similar to normal diarrhoea, but more severe and included vomiting.

Also, the hands and mouth of patients suffering from the new strain would become pale.

If the patients lost too much fluid, they would experience muscle cramps and could become unconscious, the director-general added.

He said treatment was the same as for diarrhoea: maintaining liquid intake, especially with electrolyte beverages, and in serious instances, receiving electrolyte saline-glucose solution intravenously.

Prayoon said 12 cases of the disease had been found in Bangkok in May.

Two others were detected in Samut Prakan and Pathum Thani.

Prayoon said the new strain of cholera could spread further in Thailand and that the infection could only be prevented through good hygiene.

He added that as yet there was no effective vaccine available to fight the disease.

He said about 40 percent of ordinary diarrhoea cases were caused by the Rota virus, especially in children.

The Samobela virus caused about 30 percent of the cases and the Ziggara virus caused 10 percent.

According to the department's statistics, only one in a thousand diarrhoea patients were likely to die from the disease, Prayoon said.

He added that the new strain of cholera would not seriously hit Thailand.

#### Potential for Worldwide Epidemic

93WE0585B Bangkok BANGKOK POST 24 Aug 93  
p 31

[Article by Pia Pini: "Deadly Cholera Strain Reaches Thailand"]

[Text] A cholera-like illness, swept across the Indian subcontinent and is now infecting Thailand.

The culprit is a bacterium known as *vibrio cholerae Bengal*, so-named because of its origins in the coastal cities along the Bay of Bengal.

According to infectious disease specialists in Thailand, the Bengali strain has now reached Bangkok.

Dr Manas Chongsa-nguan said in a report recently published in *The Lancet* that, between April and June, the strain had been recovered from patients in the Infectious Diseases Hospital in Nonthaburi, suburban Bangkok.

According to overseas experts, the disease had the potential to become a world-wide epidemic (or pandemic).

"The disease produced by this organism is indistinguishable from typical cholera," said Professor R Bradley Sack, who headed a team of investigators from the International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR).

The team is regularly asked to assist in cholera outbreaks, which occur about twice a year in Bangladesh and the Ganges River delta.

But the researchers soon suspected outbreaks of cholera were getting out of control.

It started in December last year, when the Government of Bangladesh called in the ICDDR to assist in an outbreak of what was thought to be cholera in the southern part of the country.

The researchers realised that this was no run-of-the-mill cholera outbreak because the illness spread so rapidly—first to the middle and northern parts of the country, and then along coastal areas moving eastward.

By the end of March this year, more than 100,000 people were affected, with more than 1,500 recorded deaths. The Bengali region accounted for a large proportion of these cases.

All patients had severe watery diarrhoea and vomiting, with rapid onset of dehydration.

The Bengali strain is known as a *non-O1 vibrio* because the chemical structure of part of its outer "covering," differs from that of *vibrio cholerae O1*, the cause of typical cholera.

To differentiate between it and the other 137 non-O1 vibrios, the Bengali strain has been assigned to a new group called O139, based on a typing system devised by Japanese researchers.

Evidence from the US Food and Drug Administration suggests the newly-emerged strain is, in fact, a mutant of one type of *vibrio cholerae O1*.

The Bengali strain first appeared in October last year in Madras, southern India, and quickly spread to other cities in Tamilnadu State (Madurai and Vellore), Calcutta and eventually Bangladesh.

Two US experts were quick to point out the epidemic potential of the new strain, and the fact people have not built up any resistance to it, should alert ministries of health throughout Asia, Africa, and Latin America.

Dr David Swerdlow and Dr Alen Ries, from the Centres for Disease Control and Prevention in Atlanta, Georgia, said that, until now, only O1 strains of *vibrio cholerae* were known to cause epidemic cholera, with non-O1 strains being responsible for sporadic cases.

"Greater speed of transportation with higher frequencies of international travel and large population movements may make the spread of this new epidemic even more rapid than that of earlier pandemics," they said, adding

that existing vaccines and those under development to prevent cholera caused by *vibrio cholerae O1* are unlikely to be effective against the Bengali strain.

"The epidemic is still spreading in Bangladesh, and we cannot yet predict its ultimate spread," said ICDDR investigators.

"The risk of *vibrio cholerae O139* spreading throughout Thailand and neighbouring countries is genuine. The spread of this new strain should be carefully monitored in this subcontinent."

The fact such spread has occurred within a year since the first recorded outbreak in Madras is evidence the Bengali strain is spreading faster than previous epidemics, adding to the theory the strain has pandemic potential.

There is no room for complacency—cholera epidemics were recorded as little as 20 years ago in Italy and Portugal, and the current epidemic in Latin America shows no signs of abating.

An additional concern voiced by Dr Mary Jesudason and colleagues from the Christian Medical Hospital in Vellore, India, is the Bengali strain might be capable of causing septicemia (blood poisoning), a life-threatening disorder which is not seen with typical cholera.

As with typical cholera, treatment with replacement fluids and antibiotics shorten the course of the disease and is usually successful.

Moreover, researchers have found that the Bengali strain produces a cholera toxin, which is responsible for the symptoms of the disease.

They also have evidence that, as with typical cholera, the illness is likely to be water-borne.

Most infectious disease specialists agree that control measures should focus on treatment of water and preventing contamination during distribution and in the home.

But, as Swerdlow and Ries pointed out, "despite efforts to improve municipal water and sanitary systems in the past 30 years, this infrastructure has decayed in many parts of the world.

"But there is still time to act. Health ministers, aid organisations, and local governments need to cooperate with each other and with the World Health Organisation to combat this new epidemic, which may threaten populations in many parts of the world."

#### Health Officials Link Diarrhea Outbreak to Cholera

93WE0583C Bangkok NAE0 NA in Thai 21 Aug 93  
pp 1, 2

[Excerpt] [passage omitted] On 20 August at the Communicable Disease Control Department, Ministry of

Public Health, Mr. Anek Thapsuwan, the deputy minister of public health, and Dr. Prayun Kunason, the director-general of the Communicable Disease Control Department, issued a statement on a new strain of diarrhea that is now spreading in Thailand. They said that after severe outbreaks of this disease in India and Bangladesh affected more than 100,000 people, leaving more than 1,000 people dead, the Communicable Disease Control Department began monitoring this new strain of diarrhea, which is called "0139," very closely. It has been found that this new strain closely resembles cholera, which causes severe diarrhea. To date, 12 cases of this disease have been found in Thailand, but so far no one has died.

The director-general of the Communicable Disease Control Department said that people with the "0139" strain have been found in Bangkok, Pathumthani, and Samut Prakan. Based on the number of cases discovered so far, it is thought that the Communicable Disease Control Department will be able to control this disease and prevent an epidemic. However, people must protect themselves from this by eating food just after it has been cooked, drinking clean water, and avoiding eating foods beset by flies. If a person has diarrhea, he should immediately go and see a doctor in order to take ORS, which is a substance that can relieve dehydration and the loss of body salts.

Dr. Prayun said that in the past period, most of those with serious cases of diarrhea have been children below the age of five. They usually contract a type of virus known as the "rota virus." Doctors have not yet been able to find a vaccine to control this virus. Thus, this virus poses a great danger.

Mr. Anek said that from monitoring serious cases of diarrhea in 1992, the Ministry of Public Health found that a total of 995,984 people suffered from diarrhea and 446 people died. Of those suffering from diarrhea, 83.4 percent had a sudden case of diarrhea, 8.2 percent had dysentery, 6.5 percent had food poisoning, 1.4 percent had "en-ter-rik" fever [anthrax?], and 0.6 percent had severe diarrhea. In 1993, a total of 358,160 cases of diarrhea have been reported. Of these, 11,325 have severe diarrhea, and 27 have died.

#### **Drug-Resistant Malaria Strain Found in Trat**

##### **Chinese Herb Tested**

93WE0583A Bangkok DAILY NEWS in Thai  
27 Aug 93 p 3

[Excerpt] Dr. Prayun Kunason, the director-general of the Communicable Disease Control Department, was interviewed about the spread of malaria. He said that the number of people with malaria has now declined. But in the five border provinces of Mae Hong son, Tak, Chanthaburi, Ranong, and Trat, malaria is still quite prevalent. The problem is that Thais frequently contract malaria while mining gemstones and cutting timber in Cambodia. Also, the Cambodian refugees who flee to

Thailand bring the malaria virus with them. Because of this, we have not been able to eliminate this problem.

Dr. Prayun said that malaria is treatable. The problem is that there is now a drug-resistant strain of malaria. This strain has been found in some provinces such as Trat, where 40 percent of the patients have this strain of malaria. In the past, doctors gave their patients three tablets, but now, some have to take four tablets. As for solving this problem, Dr. Prayun said that we must change medicines and find new drugs. Today, both Thai and foreign experts are conducting studies at the Faculty of Tropical Medicine, Mahidol University. In particular, they are conducting tests on a drug known as "Singha-osu," a Chinese herb. It is thought that we will be able to conquer this drug-resistant strain of malaria. [passage omitted]

#### **Further Report**

93WE0602A Bangkok MATICHON in Thai 6 Sep 93  
p 12

[Excerpt] [passage omitted] Dr. Prayun Kunason, the director-general of the Department of Communicable Disease Control, said that malaria units have found that the incidence of malaria has declined during the past 4-5 years. Most recently, the incidence of malaria nationwide was found to be 3.15 people per 1,000 people, and the death rate was 2.1 per 100,000 people. During the period October 1992-April 1993, more than 60,000 people were found to have malaria. There are two strains of malaria that pose a problem: *Plasmodium falciparum* and *Plasmodium vivax*. These are carried by the anophelous mosquito. The provinces where large numbers of people with malaria have been found are Tak, Trat, Chanthaburi, Kanchanaburi, Mae Hong Son, Prachinburi, Prachuap Khiri Khan, Sisaket, Ranong, and Rattaburi provinces, which are located along the Thai-Burmese and Thai-Cambodian borders. In 1993, blood samples taken from more than 140,000 people showed that more than 26,000 people had the malaria virus.

Dr. Prayun said that some places have not had much success in treating malaria, because the malaria virus has become drug resistant. This problem is particularly acute in Tak, Trat, Chanthaburi, and Prachinburi Provinces. Simply taking prophylactic medicines before entering jungle areas in these provinces may no longer provide immunity. People should take measures to avoid being bitten by mosquitoes by applying anti-mosquito sprays or sleeping under mosquito nets. As for solving the problem of drug-resistant strains of malaria, the Malaria Division is presently doing research on new types of drugs, that is, RT Sunet and RT Metther, which are made from Chinese herbs.

"Good results have been achieved in treating malaria patients with these drugs. The drugs produce an effect and are eliminated from the body quickly. There are few side effects. The treatment lasts only 5 days," said the director-general of the Department of Communicable Disease Control.



**Trat, Cambodian Border Malaria Update**

94WE0045B Bangkok THE SUNDAY POST in English  
12 Sep 93 p 21

[Excerpts] Borai in Trat adjoins in the Cambodian border and is renowned as a springboard for gem miners and traders looking for fortunes in the mountains across the eastern border.

[passage omitted] It is also a place where health officials say nearly everyone has had malaria. The parasite has also been detected in the districts of Muang, Khao Saming, Laem Ngob, Nong Bon and Klong Yai in Trat.

Here, people do not ask each other if they have ever caught malaria but rather how many times.

A random interview with three men walking along a street drew these responses: 'About six times this year,' one said. Another replied, 'More than six times this year, I think.' The third person laughed and answered, 'Countless times.'

[passage omitted] While reports indicate that about 150,000 Thais catch the disease annually and about 1,000 die from it, an official at the Communicable Disease Control Department insisted that the incidence of the disease has fallen to a 'minimal level and remains stable.' This pointed to the success of the national control programme, he said. A few decades ago, a half million Thais fell victim to the disease, and no fewer than 10,000 died from it annually. Infection and death have always occurred widely in border provinces, the victims being mostly those involved in mining and forestry on the borders. No neighbouring countries, except Malaysia, have a malaria control programme. They think it would be futile since the disease is widespread in neighbouring countries.

The easternmost district of Borai is the most serious malaria-infested area in the eastern region, if not the whole country.

The dangers of malaria here were best shown during the '1990 outbreak,' when the Public Health Ministry had to mobilise personnel from all parts of the country to help its Borai staff fight the disease.

In 1986, the number of malaria infections in the district was 6,252. It rose to 6,861 in 1987, 10,099 in 1988 and 19,181 in 1989.

A year later, the number reached a peak of 43,627, out of 125,025 blood samples taken in the three sub-districts of Bor Phoi, Nontri and Dan Chumphol. The number of infections nationwide rose to over 270,000 from the average 150,000. A health official noted that one person could have had more than one blood test, and might have caught the disease more than once in a year.

Despite the substantial number of infections reported in Borai, the death toll is comparatively low. Records at the local hospital show an average of a little over a dozen deaths reported in a year.

'There were reports of many deaths in Cambodia, but this could not be confirmed,' said the official.

The outbreak was apparently the result of a mass migration to the area from all parts of the country of people hoping to make a fortune digging for precious stones in the jungle in the district or across the border in the mountains of Cambodia.

The population in the three sub-districts, 22,329 in 1986, had swollen to some 45,000 in 1990. Apparently more people migrated to the area to fill the jobs created by the mining and logging boom.

'We don't know the exact number of those who stay on the mountain to dig for treasure,' a local administration official said. 'From Borai, they sneak across the border into Cambodia, and return only after they find something, a precious stone or malaria,' he added.

Since reaching its peak in 1990, the number of infections dropped to 26,510 in 1991 and 23,665 in 1992. Improvement in the situation is attributed to border closures in January following political changes in Cambodia. 'Since the border has closed, migration has gradually declined, cutting the rate of infection sharply,' said a malaria control official.

According to the official, the number of infections has dropped by more than half compared to the same period last year. In the first 10 months of the fiscal year, there were 1,203 cases compared to 2,774 during the same 10-month period last year.

'The decrease is surely not due to the effectiveness of the health service along,' said a malaria control official in Borai. 'It's largely the result of people leaving this area to look for their fortunes elsewhere.'

The population in Borai's sub-districts, which had risen to 45,394 in 1990, has now dropped to 42,128. A military source said very few people remain on the mountain opposite Borai since the closure of the border. However, some miners continue to work along the border.

Malaria clinic staff also confirm that few of the miners remain in town.

Experienced malaria control staff realise that malaria victims are generally those who spend their lives working in dense jungle where malaria control is virtually non-existent.

They are low income people, working in the forests or mines or hunting for gems on their own, legally or illegally.

Health officials hold up Borai as proof of a malaria 'risk group.' Interviews with these people when they arrive in Borai show that they have mined in other places. 'They're all experienced miners from other parts of the country,' said one official.

A study by local malaria staff shows that malaria victims in Borai came from 61 of Thailand's 73 provinces. In January 1990, interviews with 5,672 malaria victims showed that Trat had the highest number of infections at 2,002, or 35 percent of the total. Those from western provinces made up 25 percent and those from other eastern provinces, 15 percent.

Now it appears that the disease is being spread throughout Thailand by the immigrants who have begun to leave Borai, the official said.

[passage omitted] Every morning in Borai, a bus leaves at 5am heading for Mae Sot. It carries around 50 passengers, almost all of them gem miners.

From Tak's Mae Sot, some of them continue on to Mae Sai in Chiang Rai or Muang in Mae Hong Son. 'We think we have a fortune waiting for us there,' said one passenger. Many look pale and unhealthy.

But they may know more about malaria than most people think. 'I've had both *plasmodium falciparum* and *plasmodium vivax* [the two major types of the parasite],' one miner heading for Mae Sot said.

They also know how to take care of themselves after catching the disease. One said, 'You must take three tablets of mefloquine and one primaquine when the malaria parasite is found in your blood.'

'About 7 days later, if the fever is still there, it means it is resistant to drugs. You must then take a mix of quinine and tetracycline.'

Asked what he would do if this still does not work, he replied: 'Continue taking quinine and tetracycline.'

### **Malaria Control Issues, DDT Usage**

94WE0045A Bangkok THE SUNDAY POST in English  
12 Sep 93 pp 20, 21

[Excerpts] From 150,000 to 200,000 people reportedly come down with malaria each year in Thailand, and about 1,300 of them die. Two provinces—Trat in the East and Tak in the North—account for nearly 70 percent of all cases.

Malaria Division officials fear they are fighting a losing battle against the emergence of a highly resistant strain of the most deadly *plasmodium falciparum* malarial parasite. Not only is the parasite reportedly reproducing fast, it has also been found to be resistant to most anti-malaria drugs now on the market. The parasite, first identified in Trat, may now be jumping borders on international traffic lines and has been reported in Africa.

[passage omitted] The medical profession has long considered malaria curable, yet more than 1,200 people died from it in Thailand last year. The question is: Why?

DDT and deforestation: causes of 'success': Malaria was prevalent throughout Thailand when it began an eradication programme in the mid-1950s with the support of the World Health Organisation (WHO).

Relying heavily on the use of DDT, the programme was initially extremely effective. It almost succeeded in eliminating malaria, to the point where there are now provinces in Thailand that have been declared malaria free, including Bangkok and Ayutthaya.

The programme's failure to eradicate was in part due to the ingenuity of the mosquito which, it was noted as early as 1986, was smart enough not to land on DDT-treated nets and walls.

It appeared that DDT was ineffective against mosquitoes, and international pressure to stop the use of DDT because of its severe environmental effects forced the Public Health Ministry in January 1980 to ban its use in household products and in agriculture.

The malaria programme was forced to change course. 'WHO recognised that eradication was impossible and the production of an alternative insecticide too risky and too expensive, so it altered its policy to one of control,' explained William Rooney, a senior technical officer for WHO and adviser to the ministry's Malaria Division.

[passage omitted] Yet 10 years later, the Malaria Division continues to use DDT, because the 1980 ban exempted its use in Public Health Ministry projects.

DDT used correctly in powder form and sprayed on the walls of houses should not be poisonous to people, agreed the two experts. But the question remains as to what happens when floods wash residue into the rice paddies.

The division uses DDT in some situations but care is taken to spray it beneath the roofs of houses so that rain does not wash it away, a source said.

DDT is sprayed on houses twice a year in villages that border forested regions defined as 'perennial transmission areas.'

The division has a new insecticide project to help people in malaria infested regions. Mosquito nets are permeated with a formula derived from the chrysanthemum flower (pyrethrum extract), similar to projects shown in Africa to help reduce infant mortality.

Experts agree that the main reason for the malaria programme's apparent initial success 40 years ago was the rapid rate of deforestation in Thailand.

Malaria-transmitting mosquitoes here usually belongs to the *anopheles dirus* and *anopheles minimus* species found in forests. Thai mosquitoes lay eggs in the pristine waters that collect in the crevices of plants, or beneath the shade of trees, unlike African and Indian mosquitoes, which prefer stagnant pools. As the Thai forests receded,

so too did the prevalence of the malaria mosquito because they could not adapt to conditions in Bangkok and other urban areas.

Parasite becoming stronger and deadlier: But malaria is still prevalent in many provinces, and in some areas has reached epidemic proportions.

The provinces of Trat, particularly the border town of Borai, had in 1990 a record 60,000 malaria infections, resulting in extensive mobilisation of malaria control personnel. The control measures implemented by the division included providing drums of insecticide for dipping nets and clothing in. This involved close cooperation with the Thai military in the region, said a source from the division.

The outbreak has been blamed on a large influx of people to the border town, caused by a gem-mining boom on the Cambodian border. Most malaria victims here were Thai males aged 15 to 34 from provinces throughout Thailand.

While statistics for the period vary, the Communicable Diseases Control Department says the number of cases in Borai has since dropped as a result of border closures, which caused fortune-hunters to leave the area in search of better opportunities elsewhere.

The number of cases in 1991, 1992 and 1993 appear to have fallen, reversing the 1988-1990 trend. But officials now fear an outbreak along Burmese border due to a large movement of gem miners there, carrying the malaria parasite with them.

The onus of malaria control has now shifted to the North, with particular concern arising in booming 'gem towns' in Tak, Mae Hong Son and Chiang Rai.

The problem is further compounded by reports that the most lethal strain of malaria parasite, *P. falciparum*, which causes cerebral malaria, is now resistant to quinine-based drugs. Experts say the presence of 'transient human populations' has caused the spread of this resistant parasite from the border of Cambodia to that of Burma.

In the early 1960s, resistance to chloroquine, the malaria drug extensively used at the time, was first identified in Trat by Professor Khunying Tranakchit Harinasuta, of the Bangkok Hospital for Tropical Diseases, Faculty of Tropical Medicine, Mahidol University.

Since then, the *falciparum* parasite has become resistant to all quinine-based derivatives now on the market. This includes the latest quinine derivative, mefloquine, in 1986. (see box timeline).

As these discoveries were made several hundred miles away in Tak, malaria researchers made the connection between the parasite and the large number of Burmese, Karen and Mon gem miners who travelled from Mae Sot to Borai to find gems in the hills of Cambodia. Trat

became known as the source of drug-resistant malaria for the entire Southeast Asian region.

The direct bus route from Trat to Tak ensures the parasite a safe uneventful journey. Thus, on their return to the North, transient gem miners are unwittingly helping to spread the world's most lethal parasite.

The parasite's drug resistance is the result of over-exposure to quinine-based drugs, extensively used as prophylactics and single-dose cures. In 1990, the Public Health Ministry reported 809,149 cases of 'primary treatment' for malaria, or 'presumptive' doses of Fansidar issued as a single-dose cure. The same year reported 271,691 confirmed cases of malaria.

In Cambodia, chloroquine was even added to household salt under an experimental project initiated by Prince Norodom Sihanouk in the 1950s to eradicate the malaria parasite. When seen through a microscope, it is larger and stronger than the parasite normally found in Thailand. Staff at the malaria centres jokingly call it the 'Cambodian' strain.

It has reached a point now that the malaria authorities in Thailand no longer advise the use of drugs as a prophylactic against malaria. Yet doctors in the West continue to advise tourists to take these drugs when they travel in malaria regions.

Good health, prompt testing and timely treatment are more effective, claim Thai experts.

CDC director-general Dr Prayoon Kunason even issued a statement on September 2 that said the present medication is no longer effective in preventing infection by the *falciparum* strain found in Trat and Tak, and that insect repellent is the best protection.

Lab technicians at malaria clinics believe they are able to trace the malaria parasite while it is active in the blood, but detection could be a problem when the parasite is incubating in the liver.

While treatment of the *falciparum* parasite using quinine-based drugs does not eradicate the parasite, it may reduce them enough that they are unable to detect, and even more deadly when they resurface.

Not only is the parasite now resistant to drugs, but it is able to spread this resistance to the female mosquito. When she bites, she too becomes infected with the resistant strain and will pass it on to her next victim after an incubation period of 10-11 days.

Control effectiveness an issue of regional politics: Mr Rooney said WHO's policy is to 'reduce the problem to a manageable level for health services to cope with.' While some countries in Asia have reached that stage, their programmes' effectiveness is being thwarted by politics and warfare in neighbouring regions.

Thailand is hindered in its malaria-control efforts by the unstable political situations in Burma and Cambodia.

However, Thailand does have one of the most comprehensive malaria health care systems worldwide and Thai experts are called upon regularly to advise other countries on malaria. The Kingdom regularly hosts training programmes conducted by the WHO, said Mr. Rooney.

Its more than 500 malaria centres are funded by the Thai Government and have been allocated six million baht for 1993. The clinics are free and work independently of the general health services, taking a large share of the burden of malaria treatment away from Thai hospitals.

But Thailand's success depends on its ability to control malaria in its border areas. Malaria Division sources liken the present situation to putting sandbags up against a river to stop flooding.

'The most important thing is to establish cooperation with out neighbours,' said a source. 'We must motivate our neighbours to try to find ways to fight malaria. The Thai people have the expertise and are more than willing to work with them as consultants. But we can't be expected to do it for them.'

[passage omitted] Parasite's next targets: As quinine-based drugs lose their effectiveness, severe epidemics are feared in Burma, particularly in the remote poor regions of the hills bordering Thailand where the health care system is inadequate. Poverty and politics are strong contributing factors to the severity of the epidemic.

As with all diseases, those in good health and who have access to adequate food and medication are the most likely to survive. The Burmese students who fled the bloody crack-down on pro-democracy dissidents in Rangoon to the Thai border in 1989 report that almost all of their comrades have had malaria at least once while staying at Three Pagodas Pass. Without good food and medical care many died. Even the normally less-severe *P. vivax* can be fatal.

Malaria infection often causes anemia and, without proper food and medication, can cause a victim to die, said Tint Zaw, a Burmese university physics lecturer. He believes the first battle must be against the injustices of

the military junta in Rangoon: 'When that is won, we can work toward eliminating malaria.'

Reports from malaria centres in Kanchanaburi say that many hill Karen and Mon, although suffering malaria, will not risk coming down to the clinics for treatment.

The problem isn't that they can't afford the treatment, said the source, but that they can't risk being fined by the Border Patrol Police.

Hilltribe groups are certainly at high risk, agree sources in Bangkok, and reaching them is a problem. Some groups are also apparently suspicious of the control methodology.

Figures show that Thailand is accepting the burden of a large number of non-Thai infections. From October 1991-September 1992, out of 256,569 non-Thais tested, there were 48,492 positive results. It is believed that as the number of refugees lessens, so too should the rate of infection.

Sources suggest that child mortality rates could rise to 30 percent in some Karen villages in the hill regions of Thailand. The CDC does not have child mortality figures available but says that, in the general Thai population, child mortality is much lower than in Africa.

It says the rate was 300 per 1,000 people in 1951 out of an annual death rate of 40,000-50,000 people. The malaria death rate is around 1,200 people a year.

While the average in Thailand as a whole is dropping, the numbers in provinces such as Mae Hong Son and Kanchanaburi are rising.

#### Dengue Fever Threat in Songkhla

93WE0583B Bangkok NAE0 NA in Thai 21 Aug 93 p 9

[Excerpt] Dr. Prachak Khaosanguansin, the head of the Social Medicine Section, Songkhla Hospital, said that studies conducted by the hospital on dengue fever have shown that there is a serious epidemic every 3 years. This year, 1993, we are due for another outbreak of dengue fever. Songkhla Hospital has already treated more than 10 people with this disease, and it is expected that the number will increase. [passage omitted]



**BOSNIA-HERCEGOVINA****Viral Hepatitis Situation Worsens in Sarajevo***AU0710174293 Sarajevo Radio Bosnia-Herzegovina Network in Serbo-Croatian 1400 GMT 7 Oct 93*

[Text] The hygienic-epidemiologic situation is worsening in Bosnia-Herzegovina and in Sarajevo. [Word indistinct] infectious diseases are most frequently registered, particularly viral hepatitis A and enterocolitis.

**Health Committee Says Hepatitis, Enterocolitis Spreading***AU2810192693 Sarajevo Radio Bosnia-Herzegovina Network in Serbo-Croatian 1800 GMT 28 Oct 93*

[Text] In the last 24 hours, 26 people were killed and 28 wounded in the regions of Mostar, Maglaj, Gradacac, Srebrenica, and Sarajevo. Twenty two people were killed and 10 wounded in Sarajevo alone. This was stated in a communique issued by the Republican Committee for Health.

Aid in food, medicines, medical accessories, footwear, clothes, and fuel is still needed in the regions of Mostar, Konjic, Jablanica, Tesanj, Maglaj, Olovo, Hrasnica, and the free territories of Teslic and Doboj.

Due to the lack of fuel, the medical center in Sarajevo has reduced the scope of medical assistance and is dealing with urgent cases only. The epidemics of hepatitis and enterocolitis in Bosnia-Herzegovina are still spreading.

**CROATIA****WHO Warns of Hepatitis Epidemic in Croatia, Bosnia***LD2209192593 Zagreb Radio Croatia Network in Serbo-Croatian 1000 GMT 22 Sep 93*

[Text] In a statement today, the Zagreb-based WHO [World Health Organization] regional office drew attention to an epidemic of Hepatitis A in parts of Bosnia-Herzegovina and in UN Protected Areas in Croatia. It is said in the statement that WHO doctors in Sarajevo daily register 10 new cases, and are appealing to donors to send gamma-globulins and water purifying tablets to the population in the most affected areas.

**ROMANIA****Health Ministry Reports 14 Cholera Cases in Tulcea County***AU0211163193 Bucharest ROMPRES in English 1527 GMT 2 Nov 93*

[Text] Bucharest ROMPRES 2/11/1993—A number of 14 cholera cases in the Tulcea County have been recorded as of November 2, 1993, with one of the

patients originating from Braila, the Ministry of Health informs. The case of the Braila resident is accounted for by the patient's having been contaminated while on holidays in Tulcea County. The condition of patients in all reported cases is improving. So far one death has been reported.

The first case of cholera in Tulcea county (which includes the Danube Delta) was reported on 7 October this year and the last on 29 October. Since then no other occurrences of the disease have been reported.

**YUGOSLAVIA****Serbia: Increase of Contagious Diseases Registered Among Students***AU2810201393 Belgrade BORBA in Serbo-Croatian 22 Oct 93 p 25*

[B. Cani report: "Scabies and Lice in Studenjak"]

[Text] Extremely bad hygienic conditions in the Student Town, caused by the shortage of fuel for water heating, and of hygienic products for personal use, have brought about scabies and lice among the students. The situation is not better in other student homes in Belgrade as well. In the bathrooms of the third and the fourth annex to the Studenjak student home there has not been hot water for as long as 4 months (those are renewed dorms). The scholars wash themselves in the central bathroom, in which there are 100 shower baths. However, more than half of them are out of order, while hot water runs every third or fourth day.

"Apart from scabies and lice, in recent days there has been an increased number of anemic students, which is the consequence of bad nutrition. The immunity has weakened, so that respiratory diseases are being registered in ever-growing numbers. Besides, the number of reported skin diseases caused by bug bites is also rapidly increasing," Dr. Dragan Ilic, director of the Health Care Institute, says.

From 1 September until now, around 5,000 students underwent medical check-ups. The results are disastrous. As Dr. Mila Paunovic, doctor in the Student Polyclinic, informed us, psychiatric diseases are a group where the greatest increase of cases—by as much as 14 percent—has been reported. According to Paunovic, the patients are most often freshmen (apart from matriculation problems, some people connect that also with the return from army service), senior students (being one step away from finishing their studies they have to think about their future—where to find a job, and so forth), refugees, and returnees from the front—explanation is not necessary. The number of the anemic has grown by 10 percent in relation to last year, while alone in the last two months, the number of cases suffering from urinary diseases is double last year's tally.

Ilic warns that, as a consequence of the hot water shortage for the needs of the kitchens in student homes, an epidemic of food poisoning may ensue. The Student Polyclinic has many problems because of the shortage of medicines, but they are still able to meet the basic needs of students, above all thanks to humanitarian organizations such as the Red Cross. Some medicines, like Gamix (against lice), cannot be found in the state-owned pharmacies, so those students who have money are buying it in private pharmacies at enormously high prices.

However, such a survey of the condition of health among the future intellectuals does not display real dimensions. It is believed that some of the diseases have assumed much greater proportions—particularly the contagious diseases. "For instance, in the second annex of Studenjak, where the greatest number of those infected has been reported, in one three-bed room we found seven beds, and who knows how many people actually sleep there," Paunovic says. More precise data will be known soon, after the obligatory student medical check-ups are finished.

[Box, p. 25]

Particularly distressing is the ever growing number of AIDS [acquired immunodeficiency syndrome] cases among the students. Until now 30 HIV [human immunodeficiency virus] positive cases have been registered. There are also those who have succumbed to this fatal disease. According to Paunovic, judging from the standards of the international health care institutions, that figure can freely be multiplied by 10, because of untimely registration, as well as of ignorance of the infected. Which means that there must be around 300 infected students.

Within the Student Polyclinic there is the advisory center for AIDS control, so that all students are requested to go there for advice.

### **Kosovo: New Cases of Tuberculosis, Other Diseases Reported**

AU2110073893 *Pristina KOSOVA DAILY REPORT* Nr. 211 in English 20 Oct 93

[Unattributed report: "Tuberculosis Threatens the Population of Kosovo"—issued by the Democratic League of Kosovo]

[Text] The Kosova Society of Young Researchers (KSYR) continues its undertaking which has started this summer with the goal of discovering various cases of diseases and studying of the social problems of Kosova. In the latest action undertook in some of the central parts of Kosova, the KSYR together with the Travelling Doctors Society, detected new cases of various diseases: 9 cases of tuberculosis, 6 cases of jaundice, and 24 cases of scabies. Basri Pireva, chairman of KSYR, said that this action will be carried out in other parts of Kosova as well. It is distressing that the standard of living in most of the regions of Kosova is rapidly dropping, and the living conditions are becoming very grievous. This undertaking is being carried out by over 50 volunteers: doctors, medical and high school students, reports today's Prishtina-based BUJKU.

### **Montenegro: Rabies Outbreak Causes Prohibition in Farm Food Sales**

LD1410120193 *Belgrade TANJUG Domestic Service* in Serbo-Croatian 0816 GMT 14 Oct 93

[Text] Podgorica, 14 October (TANJUG)—The Montenegrin Ministry of Agriculture has issued an order on the eradication of rabies in the municipality of Pljevlja. This incurable disease broke out in the local community of Bukovica near the Herzegovina border and, according to the order of the Ministry of Agriculture, vaccination of all domestic animals is compulsory while the sale of farm food products is prohibited.

Milk obtained from vaccinated animals must not be consumed in the next 14 days, while all food trading is banned. In addition to the municipality of Pljevlja, the order of the Montenegrin Ministry of Agriculture mentions some parts of the municipalities of Pluzine and Zabljak as threatened areas under the control of the veterinary service.

## REGIONAL AFFAIRS

### 4-Yr Rise in Tuberculosis Linked to Rising Poverty, HIV

FL0610205493 Bridgetown CANA in English  
1915 GMT 6 Oct 93

[Text] Port of Spain, Trinidad, Oct 6, CANA—After several decades in decline, tuberculosis, the highly contagious chronic disease of the lung, is on the rise in Caribbean Community (Caricom) countries. The Trinidad and Tobago-based Caribbean Epidemiology Centre (Carec) said the TB upsurge in the region was linked to the HIV/AIDS epidemic and rising poverty. Carec said the incidence of the disease was higher among the region's Carib and Amerindian peoples in Dominica and Guyana than among the general population. No reasons were given.

In a published review of the reported cases of tuberculosis in 19 member countries between 1983 and 1992, the Carec surveillance and field operations unit reported that following an overall downward trend in annual tuberculosis cases in the first half of the period, followed by a levelling off in 1988-1989, the disease rates have "crept up" in the 1990-92 period.

Eight countries accounted for the majority of cases: The Bahamas, Belize, Dominica, Guyana, Jamaica, St. Lucia, Suriname, and Trinidad and Tobago. These eight countries make up 90 percent of the region's population. Although the overall average incidence rate of reported cases was 10 per 100,000 population, the countries with rates higher than this average were the Bahamas, Belize, Dominica, Guyana, St. Lucia, and Suriname, with rates of 20.1, 35.7, 15, 16.4, 17.3, and 12 per 100,000 respectively, in 1992.

The Carec report urged the Caribbean to pay more attention to the prevention and control of TB, given the resurgence of the disease in the United States and increasing reports there of new strains of the disease which are resistant to drug treatment. The average rate of reported tuberculosis cases in the Caribbean was approximately the same as in the U.S, where there has been a similar rise in the number of cases associated with HIV/AIDS.

"The upward trend in reported cases in the last 4 years reverses a decline that began several decades ago," the latest issue of the Carec surveillance report said. "The upswing coincides with a reversal of socioeconomic circumstances in several countries and also with the marked increase in the HIV/AIDS epidemic that began in the mid-eighties. Although there were no available data on the prevalence rate of HIV/AIDS among tuberculosis patients in the region, the Bahamas reported that 31 of 63 tuberculosis cases in 1992 were HIV-positive.

Immigrants, who make up 10 percent of the Bahamas population, contributed approximately one-third of the

country's caseload. A recent trend analysis from Trinidad and Tobago also showed that most of the recent increase occurred in the 25-49 year age group, similar to the age group most affected by HIV/AIDS.

Among Carec member countries, Guyana recorded the highest number of TB cases in 1992, and since 1983. There were 182 reported cases, up from 134 cases in 1991. There were 142 cases in Trinidad and Tobago in 1992, rising from 108 cases in 1988, the lowest figure since 1984. St. Lucia's tuberculosis cases jumped from 13 in 1990 to 26 in 1992, while Dominica recorded 13 cases in 1992; in 1990 there were 6. Jamaica reported 111 cases last year, up from 86 in 1989.

Carec said "moderate under-reporting is presumed to exist" and that there are questions about the accuracy and completeness of reporting by member countries. However, the report added, "it is unlikely that large numbers of cases are being missed."

Carec, which is part of the Pan American Health Organisation (PAHO), offers epidemiology, laboratory technology, and related public health services to the region.

### Regional Health Report for 11 - 24 Sep

PA2509124093

[Editorial Report] The following is a compilation of regional health reports monitored by Panama Bureau from 11 to 24 September 1993. Source follows in parentheses after each item.

#### Colombia

Reportedly 24 persons have become infected with HIV, the AIDS virus, by blood transfusions made in the Palermo clinic in Santa Fe de Bogota from 1989 to 1990. (Santa Fe de Bogota EL TIEMPO in Spanish 10 Sep 93 p 8A)

The government has started a drive to warn the population against the danger of contracting the HIV virus, the cause of AIDS, which has infected 2,138 persons, according to the Health Ministry. (Paris AFP in Spanish 1545 GMT 19 Sep 93)

#### Costa Rica

The country has 10,000 carriers of the HIV virus, but show no symptoms. This is extremely dangerous because these people are not aware of their condition and can infect others, sources of the National AIDS Commission and WHO have warned. Up to and including last week, 517 cases had been reported. (San Jose LA NACION in Spanish 8 Sep 93 p 8A)

#### Ecuador

In Ecuador, 17 people have died of AIDS so far this year, according to a Health Ministry report. Another 100 people have been identified as HIV carriers in Guayas.

Pichincha, Esmeraldas, and Azuay provinces. (Paris AFP in Spanish 1959 GMT 17 Sep 93)

#### **Guatemala**

The Public Health Ministry has reported that 14 people died throughout the country as the result of a cholera outbreak during epidemiological week 35 that closed on Saturday 4 September. (Guatemala City EL GRAFICO in Spanish 12 Sep 93 p 6)

#### **Honduras**

In Catcamas, Olancho department, the Public Health Ministry has declared a state of emergency due to the repeated occurrence of cholera cases. Seven more cases were detected in the past few hours alone. Regional Health Director Eda Sofia Calix has reported. (Tegucigalpa LA TRIBUNA in Spanish 22 Sep 93 p 3)

#### **Mexico**

The Health Secretariat's epidemiology directorate today reported that 7,459 persons have been infected with cholera and 146 deaths have been reported in Mexico from January to August this year. A source said the cholera death rate is 1.8 per 100. (Madrid EFE in Spanish 2115 GMT 11 Sep 93)

#### **Nicaragua**

The Health Ministry has reported that the cholera epidemic has killed 165 persons and infected 6,118 others since the disease appeared in the country in 1991. So far this year, 122 persons have died and more than 3,000 others have been infected. (Panama City ACAN in Spanish 2155 GMT 16 Sep 93)

It has been reported that 200 cholera cases have occurred in Jinotega, that 60 percent of those struck with the disease are in serious condition, and that there have been 20 fatalities. (Managua Radio Sandino in Spanish 1830 GMT 22 Sep 93)

#### **Panama**

According to a report released by the Health Ministry Department for the Care of the Environment and Vectors Control, 316 malaria cases have been reported so far this year. This number represents a drop of 147 cases compared to last year's figures. (Panama City EL PANAMA AMERICA in Spanish 13 Sep 93 p 10A)

The Health Ministry Technical Epidemiology Division has reported that 264 males and 59 females have been killed by AIDS in Panama. It has also been reported that 542 persons have been found to be infected with HIV. (Panama City CRITICA LIBRE in Spanish 19 Sep 93 p 4)

#### **Peru**

Health authorities have reported that at least 40 persons have died of cholera in Amazonia Department so far this

year. Vilma Casanova, regional epidemiology director in Iquitos, said a dangerous renewal of the cholera outbreak has been occurring since August, much more serious than in 1992. She added that some 2,800 persons had been infected up to last week. (Paris AFP in Spanish 1558 GMT 12 Sep 93)

Peruvian health authorities are worried about the increasing number of AIDS occurrences and are afraid the number of infected persons might exceed the hospitals' capacity in 5 or 10 years. The number of AIDS patients is 4,000, but the number of HIV carriers has been estimated at 30,000. The disease, detected in the country for the first time in 1983, has killed 1,200 people so far. (Madrid EFE in Spanish 0923 GMT 22 Sep 93)

#### **Southern Cone Health Report for 24 - 30 Sep**

PY3009221293

[Editorial Report] The following is a compilation of reports on epidemics and diseases monitored by Paraguay Bureau from 24 to 30 September.

#### **Bolivia**

General Health Under Secretary Joaquin Monasterio has reported that 101 AIDS cases were registered nationwide during August. (La Paz PRESENCIA in Spanish 4 Sep 9 p 6)

#### **Brazil**

The latest Health Ministry report on AIDS reveals that 58 percent of the 41,000 cases notified nationwide are between 15 and 34 years of age. The report also reveals that 50 percent of HIV positive Brazilian teenagers contracted the disease from hypodermic needles while taking drugs. (Rio de Janeiro Rede Globo Television in Portuguese 2300 GMT 24 Sep 93)

#### **Chile**

A total of 414 cases of meningitis have been registered in Chile so far this year. Of these, 43 cases were registered so far in September, 13 percent less than in August. Of the national total, 250 patients, or 60.4 percent, are in the Metropolitan Region and 56.9 percent of all cases are children between 1 and 4 years of age. The risk of becoming infected in Chile is 3 in 1,000 inhabitants. The Health Ministry has reported 43 deaths as result of meningitis so far in 1993. After the Metropolitan Region, the regions with the most cases are: Antofagasta, with 8.2 percent of all national cases, and Iquique, with 7.5 percent. (Santiago Radio Cooperativa Network in Spanish 1100 GMT 29 Sep 93)

#### **Regional Health Report for 24 Sep - 1 Oct**

PA0210040493

[Editorial Report] The following is a compilation of regional health reports monitored by Panama Bureau



from 24 September to 1 October 1993. Source follows in parentheses after each item.

### Colombia

Health authorities report that five new AIDS patients are admitted every week to the Simon Bolivar Hospital. Seven out of 10 patients have contracted AIDS through unprotected sex. Seventy percent of the patients are men and 30 percent are women. (Santa Fe de Bogota Inravisión Television Cadena 1 in Spanish 0000 GMT 24 Sep 93)

### Costa Rica

The Pan-American Health Organization has reported the following statistics on cholera cases in Central America from January to August: El Salvador, 4,004 cases; Guatemala, 14,952; Honduras, 481; Nicaragua, 1,727; Panama, 42; and Costa Rica, 20. (San Jose Radio Reloj in Spanish 1730 GMT 28 Sep 93)

### Ecuador

Of 46 AIDS cases registered in Ecuador this year, 18 persons have died. (Paris AFP in Spanish 1649 GMT 28 Sep 93)

### Honduras

Three more persons died of cholera this week due to an outbreak in flooded areas. A Health Ministry spokesman told ACAN-EFE that the 216 new cholera cases have caused "alarm" in the health community. (Panama City ACAN in Spanish 24 Sep 93)

In the health center of El Triunfo, 42 km south of Choluteca, eight new cases of cholera are registered daily. (Tegucigalpa LA TRIBUNA in Spanish 30 Sep 93 p 11)

The Health Ministry reported 116 new cholera cases today, one fatal, bringing the total number to 1,707 since the disease was detected in 1991. Of the 18 departments in the nation, only the Islands of Bahia and Gracias a Dios have not reported any cholera cases. (Mexico City NOTIMEX in Spanish 1841 GMT 30 Sep 93)

### Nicaragua

Health authorities have reported that the lake in Jinotega is contaminated with cholera and the fish from the lake have parasites that cause severe anemia. In Jinotega, 200 cholera cases have been reported. (Managua Radio Nicaragua in Spanish 1100 GMT 28 Sep 93)

Three Chinandega municipalities are on alert in response to a new cholera outbreak in which 300 new cases have been registered, three of which were fatal. (Managua Radio Nicaragua Network in Spanish 1100 GMT 29 Sep 93)

Health authorities registered 116 new cholera cases this week. In past weeks more than 300 persons have been

infected due to a new outbreak in flooded areas. (Panama ACAN in Spanish 2241 GMT 30 Sep 93)

### Panama

The Director of the National Services for the Eradication of Malaria said Panama is ripe for a dengue epidemic due to high levels of mosquito infestation. (Panama City Circuito RPC Television in Spanish 2300 GMT 29 Sep 93)

Health authorities reported statistics for the first 6 months of this year. There has 7,629 cases of measles, an increase in tuberculosis cases, and 323 deaths due to AIDS. (Panama City LA PRENSA in Spanish 1 Oct 93)

The Health Ministry in Bocas del Toro has reported 105 cases of whooping cough in this area in the past 12 days. A medical tour is scheduled shortly to clean up the area before the infection spreads. (Panama City LA PRENSA in Spanish 1 Oct 93)

### Regional Health Report for 1 - 5 Oct

PA0910213493

[Editorial Report] The following is a compilation of regional health reports monitored by Panama Bureau from 1 to 5 October. Source follows in parentheses after each item.

### Guatemala

Health Ministry employees have reported that nine people have died as a result of a cholera outbreak in Jacaltenango, Concepcion, and San Antonio Huista. (Guatemala City PRENSA LIBRE in Spanish 5 Oct 93 p 18)

### Honduras

Health authorities have reported 38 more cases of cholera in Honduras, including two deaths. The deaths were reported in Comayagua, but the disease has adversely affected the country's southern region the most. Since the bacteria first appeared in the country on October 1991, a total of 1,847 people have been infected, and 59 have died. (San Pedro Sula TIEMPO in Spanish 1 Oct 93)

### Mexico

At least 282 cases of cholera, including 10 deaths, have been reported in Mexico in the last week, the Health Secretariat reported 2 October. A total of 1,471 cases of cholera were reported in the country in September. (Madrid EFE in Spanish 0242 GMT 3 Oct 93)

According to Jose Ramirez Roman, a member of the Chamber of Deputies' Health Commission, Mexico holds 11th place in the world in the number of AIDS cases. A total of 14,961 cases were reported by the first quarter of the year. (Mexico City NOTIMEX in Spanish 1932 GMT 4 Oct 93)

### Nicaragua

A total of 3,748 people have been infected and 141 have died of cholera in Nicaragua during the present year, the country's health authorities have reported. Since the disease first appeared in November 1991, a total of 184 people have died of the disease. (Mexico City NOTIMEX in Spanish 2243 GMT 1 Oct 93)

### Panama

A total of 238 cases of malaria have been reported in Bocas del Toro Province, according to Antonio Grimas, provincial director of the National Malaria Eradication Service. Grimas said most of the cases were imported from Costa Rica by banana workers. (Panama City LA PRENSA in Spanish 5 Oct 93 p 8A)

### Southern Cone Health Report for 1 - 7 Oct

PY0710204493

[Editorial Report] The following is a compilation of reports on epidemics and diseases monitored by Paraguay Bureau from 1 to 7 October.

### Argentina

On 4 October the Health Ministry reported that four new cholera cases were confirmed in the past few hours in the northern part of the country. Cholera cases now totals 1,543 and the death toll for the year is 24. (Buenos Aires NOTICIAS ARGENTINAS in Spanish 1901 GMT 4 Oct 93)

### Bolivia

The first stage of the Chagas disease control program will be implemented in 1993 and 1994 in more than 191 communities located in endemic zones of La Paz, Cochabamba, Santa Cruz, Chuquisaca, Tarija, and Potosi Departments. It should be noted that 55.3 percent of Bolivian territory is considered a vectorial endemic area. (La Paz HOY in Spanish 26 Sep 93 p 8)

### Chile

The Anti-AIDS National Commission reported that 766 AIDS cases have been registered in Chile since the disease was detected in the country in 1984. Half of those who developed the disease have died. (Buenos Aires NOTICIAS ARGENTINAS in Spanish 0018 GMT 3 Oct 93)

### Southern Cone Health Report for 8 - 14 Oct

PY1410215693

[Editorial Report] The following is a compilation of reports on epidemics and diseases monitored by Paraguay Bureau from 8 to 14 October.

### Argentina

The Buenos Aires Health Ministry reported on 13 October that a strange disease of unknown origin, and very contagious, was detected in the township of Chillar, Azul District, La Plata Province. The disease causes multiform eczema, fever, and ganglionic inflammation. Approximately 100 people are reportedly affected by the disease in this township. (Buenos Aires NOTICIAS ARGENTINAS in Spanish 1836 GMT 13 Oct 93)

Justicialist Party Deputy Gustavo Green reported that approximately 50 million disposable syringes are reused in Argentina every year. He said that 100 million syringes are used in Argentina every year, of which 49 millions are imported and 2 million are produced in the country. Consequently one syringe is used twice or three times to meet the deficit. (Buenos Aires NOTICIAS ARGENTINAS in Spanish 2024 GMT 13 Oct 93)

The Rosario City Council announced yesterday that it has decided to purchase a Cuban-manufactured anti-meningitis vaccine despite the provincial and federal government's decision not to buy the drug. The city's public health secretary, Hermes Binner, said that he will personally travel to Cuba on October 29 to buy the vaccine. Meanwhile, four children were hospitalized yesterday in La Plata, and authorities in Formosa confirmed the death on Sunday of a 5-year-old girl infected with the disease. In Misiones, four meningitis cases were reported, official provincial Health Ministry sources said. In related news the national Health Ministry reported that two people came down with cholera in Salta and Jujuy. (Buenos Aires BUENOS AIRES HERALD in English 13 Oct 93 p 11)

### Bolivia

The Italian Cooperation, Copi, on 28 September delivered to the health unit authorities medicines, serum, laboratory materials, and financial resources to be used in the anti-cholera campaign. Copi's assistance, worth more than \$80,000, will be aimed at implementing prevention programs and at providing immediate assistance in the Quillacollo, Chapare, and Carrasco zones, where the disease claimed many lives in 1992. (Cochabamba LOS TIEMPOS in Spanish 29 Sep 93 p A6)

### Paraguay

The National Anti-AIDS Program director reported that 10 people were infected with AIDS in September. There are now 62 registered cases, and 247 AIDS carriers in the country. (Asuncion ABC COLOR in Spanish 9 Oct 93 p 18)

### Regional Health Report for 9 - 17 Oct

PA1710234993

[Editorial Report] The following is a compilation of regional health reports monitored by Panama Bureau from 9 to 17 October. Source follows in parentheses after each item.

**Colombia**

A new AIDS case is discovered in Colombia every 12 hours, and a person dies from this syndrome during the same amount of time. In addition, a person becomes infected with HIV every five hours. Health Minister Juan Luis Londono de la Cuesta has said that HIV is an economic threat, because "each person who dies of AIDS costs the country approximately 35 million pesos." [Santa Fe de Bogota EL TIEMPO in Spanish 9 Oct 93 p6a]

**Costa Rica**

According to official sources in Central America, the cholera epidemic, which has already claimed the lives of more than 700 in the region, increased following the floods that occurred in the isthmus in recent months. The biggest increase was registered in Nicaragua, Honduras, and Guatemala in recent weeks. Approximately 300 new cases were reported in Honduras since the end of September. Meanwhile, in Nicaragua 2,437 cases were registered in the past three months. Guatemalan Deputy Health Minister Roberto Kostler has said that "96 percent of the rivers and lakes are contaminated by feces, which is causing a new cholera outbreak." [Paris AFP in Spanish 1804 GMT 13 Oct 93]

**Ecuador**

According to police reports, while the cholera epidemic that broke out in Ecuador in 1991 and killed 891 people is showing signs of declining; the number of AIDS cases is tending to increase in most of the Ecuadorian cities. [Quito Voz de los Andes in Spanish 2300 GMT 12 Oct 93]

**Honduras**

Mauricio Oliva, head of Sanitation Region Six, reported on 8 October that 100 cholera cases are reported daily in the country's southern region, particularly Choluteca Department, and that 1,800 people have been infected since the epidemic started. According to an official Health Ministry report, 280 cases have been reported this week alone, and 61 people have died of the disease since 1991. [Tegucigalpa EL HERALDO in Spanish 9 Oct 93 p 33]

The Health Ministry reported on 13 October that 16 people died of AIDS and 179 people were reported infected with the virus in September 1993. Since the first case appeared in 1985, 3,185 people have been reported infected; of these, 750 have died, 1,930 are still alive, and the whereabouts of 500 are unknown. [Tegucigalpa LA TRIBUNA in Spanish 14 Oct 93 p 75]

**Mexico**

The newspaper EL NACIONAL reported on 13 October that according to Carmen Soler, a researcher for the National Epidemiological Reference Institute, a total of 405 children under 15 died of AIDS during 1992 and

that 420 other cases have been reported. [Paris AFP in Spanish 1432 GMT 13 Oct 93]

**Nicaragua**

According to the Health Ministry's latest report, 147 people have died of cholera and more than 4,000 have been infected. Most of the deaths have occurred in Matagalpa. [Managua Radio Nicaragua Network in Spanish 1200 GMT 11 Oct 93]

**Panama**

Not a single cholera case has been reported in the country since 19 February, says a Health Ministry report. In addition, eight AIDS cases were reported this week, for a total of 116 this year. [Panama City CRITICA LIBRE in Spanish 9 Oct 93 p 2]

According to the Health Ministry, 571 AIDS cases have been reported in the country until 30 September 1993. [Panama City CRITICA LIBRE in Spanish 14 Oct 93 p 10]

A total of six malaria cases were reported in the week from 3 to 9 October 1993. [Panama City LA ESTRELLA DE PANAMA in Spanish 15 Oct 93 p b7]

**Peru**

Apparently stricken by cholera, 120 schoolchildren were interned in several Arequipa hospitals. They had swum in the Chili River—which is heavily polluted with raw sewage—had eaten at roadside food stands, and drunk unboiled water. [Madrid EFE in Spanish 0243 GMT 12 Oct 93]

**Venezuela**

The Valencia sanitation district's Epidemiology Department has reported 173 cases of hemorrhagic dengue in this city. [Caracas EL UNIVERSAL in Spanish 14 Oct 93 p c-5]

**Southern Cone Health Report for 15 - 21 Oct**

PY2110201793

[Editorial Report] The following is a compilation of reports on epidemics and diseases monitored by Paraguay Bureau from 15 to 21 October.

**Argentina**

Provincial Health Ministry sources reported on 19 October that six new meningitis cases were diagnosed last week in Posadas. A total of 149 individuals now have come down with the disease in the province; 16 have died. (Buenos Aires BUENOS AIRES HERALD in English 20 Oct 93 p 11)

**Brazil**

A cholera outbreak in Amazonas State's Eirunepe County has been confirmed. Nearly suspected 20 cases

are hospitalized in the county hospital. The outbreak is being attributed to the St. Francis Day celebration; visitors reportedly brought the vibriosis to the region. (Brasilia Voz do Brasil Network in Portuguese 2200 GMT 14 October 1993)

#### **Paraguay**

National Anti-Tuberculosis Program statistics show that approximately 100 to 120 people die of tuberculosis nationwide every year. A total of 2,740 cases were reported last year; 90 fatal. The number of infected people increased to 1,612 from January to May this year. (Asuncion ABC COLOR in Spanish 19 Oct 93 p 19)

On 18 October, the Health Ministry's Epidemiology Department director reported that more than 1,000 measles cases have been registered so far this year; eight fatal. A total of 100 cases were detected from August to September. (Asuncion ABC COLOR in Spanish 19 Oct 93 p 19)

#### **Regional Health Report for 16 - 23 Oct**

PA2310035393

[Editorial Report] The following is a compilation of regional health reports monitored by Panama Bureau from 16 to 23 October. Source follows in parentheses after each item.

#### **Argentina**

Five new cholera cases have been registered in the Pilcomayo and San Martin areas, in Salta Province. A total of 1371 cases have been reported in the province since February 1992, of which 25 were fatal. (Buenos Aires LA NACION in Spanish 23 Oct 93 p 12)

#### **Costa Rica**

Costa Rican health authorities reported today the number of dengue fever cases has increased to 630 just three days after the epidemic was officially announced. The first case was reported 15 days ago in Puntarenas. Other cases were also reported in the cities of Cartago and Liberia. (Mexico City NOTIMEX in Spanish 1911 GMT 22 Oct 93)

#### **Honduras**

Honduran public health officials report that 16 of the 179 AIDS patients registered last month have died. Officials also report 3,182 cases of AIDS have been detected in the country since 1985, and 750 of those people infected have died. (San Pedro Sula LA PRENSA in Spanish 16 Oct 93 p 15)

On 18 October, Health authorities reported 111 new cholera cases during the previous week, adding that one of the patients has died. A total of 2,458 cases have been reported in the country since the first patient was diagnosed in October 1991. (San Pedro Sula TIEMPO in Spanish 19 Oct 93 p 11)

#### **Nicaragua**

The Health Ministry has reported 39 new cholera cases within the past 24 hours. The information indicates the number of patients in the country has risen to 4,428. (Managua Radio Nicaragua Network in Spanish 1100 GMT 20 Oct 93)

#### **Panama**

A Health Ministry report reveals 144 residents of Panama City are afflicted by tuberculosis, although it is not considered an epidemic. Medical sources said the patients' condition usually improves after receiving medical treatment for 6 months. (Panama City Circuito RPC Television in Spanish 2300 GMT 18 Oct 93)

Health Ministry sources reported on 21 October that no new cholera cases have been reported in the country since 19 February 1993. The sources added that no dengue cases have been reported since 1942. Likewise, approximately 403 malaria cases were detected in the country as of 16 October, mainly in Bocas del Toro, Darien, and Chiriqui Provinces. (Panama City EL SIGLO in Spanish 22 Oct 93 p 32)

#### **Venezuela**

The 5th Health District director today reported 52 new cases of hemorrhagic dengue in Caracas. A total of 65 hemorrhagic dengue cases have been reported so far this year, while 13 others have been confirmed as afflicted by so-called classic dengue, which is less dangerous. (Paris AFP in Spanish 2016 GMT 22 Oct 93)



## BANGLADESH

**Researcher Says New Cholera Strain Difficult To Kill**

BK2809081293 Hong Kong AFP in English 0740 GMT  
28 Sep 93

[By Nadeem Qadir]

[Text] DHAKA, Sept 28 (AFP)—A new strain of cholera bacteria which has infected thousands of South Asians lives in a microscopic algae but is difficult to destroy, a Bangladeshi researcher said Tuesday.

"The bacteria called *Vibrio-Cholerae* Non-01 is a new strain of cholera with typical symptoms of the disease but destroying it is not easy," the researcher at the Dhaka-based International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) said.

The bacteria, nicknamed "Bengal cholera" and coded 0139, thrives in a blue-green algae called "Anabaena Variabilis," said the researcher, who required anonymity.

Another ICDDR,B researcher, Muhammad Sirajul Islam, who carried out extensive laboratory tests in London and Dhaka, said he had isolated the bacteria both from patients and surface water, but found it missing during inter-epidemic periods.

"The bacteria can be destroyed in closed water like ponds using strong chlorine," Islam said, "but it is difficult to eradicate it from rivers because of continuous flow."

However, he said he was optimistic a solution would be found "sooner or later."

Hundreds of Bangladeshis have been reporting daily at the ICDDR,B, but the doctor-in-charge, M. Abdus Salam, told AFP there "are no cholera patients here."

Investigations showed, however, that treatment at the centre varied because some patients needed only oral-rehydration-salt formula medication, while others hit by the new virus were being treated with antibiotics such as Tetracycline.

The virus causes typical cholera symptoms, including diarrhoea and vomiting, the World Health Organisation (WHO) said in August.

The disease emerged in neighbouring India's Madras state less than a year ago and spread to Bangladesh, a WHO report said. It was "a different cholera strain," it said.

Bangladesh last month described as misleading reports that Bengal cholera was sweeping the country, but acknowledged that nearly 30,000 people had been infected with diarrhoea since January, and 195 of them had died.

Unofficial reports said about 2,500 people died since May this year.

Health directorate sources were quoted recently as saying the virus was "as deadly as the known cholera germ."

Men, women and children crowding the centre Tuesday were groaning with stomach pain and some were vomiting.

Diarrhoea strikes Bangladesh severely usually twice every year—from March to May and October to December. This year the disease, which kills by dehydration unless treated quickly, has hit Bangladesh from early September.

Doctors said it had remained active most of the year because of floods.

Islam said the bacteria had a symbiotic relationship with the algae, which was nitrogen-fixing, and lived in its mucilaginous sheaths.

Asked why it attacked during the same period as diarrhoea, he said during the dry season pond water became concentrated, giving the bacteria excess food, which helped it to breed faster.

"When rain comes, they just spread in the water as the algae then has 'bloom formation,' a process indicating its death," he said.

## INDIA

**Sharp Increase in Malaria Reported in Bombay****6,000 Cases Since January**

93WE0596A Bombay THE TIMES OF INDIA  
in English 19 Aug 93 pp 1, 20

[Article by Sapna Bajaj Sawant: "Malaria Rampant in City"]

[Text] Bombay, August 18—A sharp increase in the incidence of malaria has been recorded in the city in the last 6 months with the dreaded cerebral malaria, caused by the rare species *Plasmodium Falciparum*, affecting one-tenth of the total malaria victims, some of whom have succumbed to the disease.

Since January, the municipal health department has registered nearly 6,000 cases of malaria, 650 of them attributed to the *Falciparum* species.

What is more alarming is the resistance of the parasite to conventional treatment with drugs like Chloroquin and Primaquin. Clinicians are now treating patients with quinine and its combination with higher antibodies.

According to Mr V. A. Kadam, insecticides officer, Bombay municipal corporation (BMC), cases of malaria have shot up especially in A ward, F (south) and G (south) wards.

He attributes the rise to several factors like an overall increase in malaria in neighbouring urban centres to which Bombay is closely connected, like New Bombay, Bhayander, Thane and rural districts like Surat.

The heavy load of the floating, migrating population of construction workers bringing with them the malarial infection into the metropolis, is another reason for its spread. Thus, a number of secondary cases abound in the city.

The aggregation of labour at building construction complexes, spreads the malaria infection in other areas and multiplies the *Anopheles* mosquito (the malaria vector or carrier) at construction sites and in water storage tanks or building terraces, where detection and weekly treatment are both cumbersome and difficult.

Another cause for the spread is the non-compliance by municipal departments and other government bodies in respect of mosquito proofing of water storage tanks and other water reservoirs. The violators include the Bombay Port Trust (BPT), the railways (Central and Western), the CPWD (Central public works department), PWD, MHADA (Maharashtra Housing and Area Development Authority), MTNL (Mahanagar Telephone Nigam Ltd), and hospitals.

Municipal authorities claim that this year the government has restored the supply of essential drugs and pesticides required to combat the spread of the disease. These drugs were in short supply for 2 years.

Last year, the insufficient supply of mosquito larvicidal oil, a basic pesticide, may have aggravated the problem. The annual requirement of 1,300 kilolitres of this oil has been met this year, according to Mr Kadam.

Dr P. B. Devbhankar, former insecticide officer with the BMC, who is now adviser to the Madras municipal corporation in their malaria control programme, expressed concern that the species of mosquito responsible for transmission of malaria, the *Anopheles Stephensi*, is spreading and is no longer confined to construction sites.

"The transmission potential is rising, since malaria cases are being detected even among the static population," he noted. Control was crucial, and obviously the departments concerned were failing somewhere, he added.

According to Prof M. E. Yeolekar of the KEM Hospital in Parel, over the last 3 months, patients were suffering from a typical manifestations of the disease. "Now they come with jaundice, coma, high fever or hyperpyrexia. The incidence has shot up and now, of the total admissions, one-fourth are of malaria patients."

While outdoor patients are treated for malaria caused by both, *Plasmodium Vivax* (the more common parasite) and *Plasmodium Falciparum*, most of the indoor patients are those affected by *Falciparum*, which causes cerebral malaria, said Dr Yeolekar.

One out of five such patients is in a serious condition. There have been one or two deaths every month in his unit, he added. There are six units dealing with malaria cases in this hospital. At present, five patients have been admitted to the medicine department at KEM, he said.

However, there were 40 to 60 malaria patients treated at the outpatient department of the hospital every day, he added. Several patients come to hospitals after having undergone treatment elsewhere, but fail to respond to the commonly used chloroquin drug. [passage omitted]

"We are using quinine and its combination with doxycycline for effective treatment. A high degree of intravenous fluids are provided for supportive treatment. A patient who responds favourably would do so within 3 days. The ones who develop complications may be hospitalised for up to 12 days," he pointed out.

Dr S. P. Shirolkar, joint dean of the Sir J. J. Hospital, agreed that there was a rise in malaria incidence in the city and said that one case was admitted every day to his hospital. There have been four deaths due to cerebral malaria in the last 6 months here.

Dr Lata Deshmukh, dean of the LTMG Hospital at Sion, also noted an upward trend and said that there were cases of cerebral malaria and cases which were not responding to treatment with primaquin normally effective in controlling the disease.

"We are now administering quinine and tetracycline along with higher antibodies to these patients. Moreover, the patients develop complications like haemorrhaging (bleeding)," she said.

Despite the alarm expressed almost unanimously by health officials on the obvious rise in the incidence of malaria, Dr G. T. Ambiyé, the assistant health officer at the malaria surveillance department of the BMC, shrugs it off as a normal trend.

"The malaria season usually commences from July. The trend of infection due to *Plasmodium Falciparum* at present is 10 percent of the total infection, which is quite normal. Last year, in fact, it was around 15 per cent."

The recorded cases last year were around 6,700, the highest in the last 6 years. Dr Ambiyé claims that no deaths relating to cerebral malaria have been reported to him so far.

Prof N. Kshirsagar, of the pharmacology department of KEM Hospital, which is jointly working with the public health department in collecting data regarding resistance to drugs in the presently encountered malaria cases, said:

"Some of the data collected shows that *Falciparum*-related malaria in Bombay is around 25 percent of the total malaria cases recorded."

However, the "peak" of *Falciparum* cases occurs around September-October, so maybe the worst is yet to come.

Taking cognisance of the seriousness of the situation, the additional municipal commissioner, Ms Sudha Bhawe, has convened a seminar at the KEM Hospital on Sunday, where professionals in the field have been invited to discuss the problem and the effective measures which could be taken to contain it.

#### **Integrated Anti-Malaria Drive**

94WE0043A Bombay THE TIMES OF INDIA  
in English 8 Sep 93 p 5

[Text] Vashi, 7 Sep—Worried by the increasing number of malaria cases in New Bombay, the Navi Mumbai Municipal Corporation (NMMC) has launched an integrated anti-malaria drive. Teams of doctors and nurses, along with two agencies involved in malaria control, reportedly visited various quarry and construction sites for 2 days. In the 87 quarries with a labor population of 8,200, 1,119 were treated for suspected malaria, after a check-up was conducted. The doctors also took 675 blood samples for testing. At the construction sites, 1,206 patients were treated for suspected malaria, including 325 from Kopar Khairane and 300 from Narul. "Interestingly, most breeding places for mosquitoes were in drums, tyres and scrap equipment. We have appealed to quarry owners to keep their areas clean", said the NMMC Commissioner, Mr Ramesh Kumar. "Once all the construction sites are covered, we will take up similar work in all 44 villages under the corporation," he said, adding: "anti-larval operations are also going on."

#### **Madras Takes Measures To Fight Malaria**

94WE0042A Madras THE HINDU in English  
11 Sep 93 p 4

[Text] Madras, 10 Sep—In view of the high prevalence of malaria in the city, the Madras Corporation has taken measures to bring down the incidence of the disease. It has requested medical practitioners to inform its health department about the malaria cases they come across, with the least delay. This was necessary for the Corporation to take measures in the affected area to prevent the spread of the disease.

The city had recorded about 72,000 cases of malaria last year, which was about 50 percent of the total cases reported throughout the State, Corporation sources said.

The incidence of the disease until the end of July this year stood at a little over 38,000. Of this, more than 23,000 cases were reported during May, June and July. More than two lakh people had been screened so far for the disease.

#### **Intensive Measures**

The Corporation has intensified detection of cases by resorting to passive surveillance, and was taking up radical treatment of cases tested positive. Besides, intensive anti-larval measures have been undertaken. The staff involved in anti-malarial operations were being reorganized and health teams had been formed to make field work more effective.

The civic body was screening all cases of fever reported at Corporation dispensaries and Government Hospitals for malaria. Blood filming and tests for malaria were being done free of cost at all dispensaries run by the civic body. Blood slides and anti-malaria drugs would be given free, on request.

The Health Department has started distributing leaflets containing recommended treatment for malaria to private medical practitioners and has appealed to doctors not to deviate from the mode of treatment as it may lead to emergence of new strains resistant to the drugs presently being used.

The civic body has also sought their cooperation in educating patients and public about malaria, especially the need to prevent breeding of mosquitoes in fresh water sources.

Spraying operations had to be done in identified sources of breeding every week, round the year. If it was disrupted even for a week, one generation of mosquitoes would have already done the damage, a Corporation official said.

#### **Breeding Grounds**

Wells and overhead tanks in locked or unused houses served as breeding places for mosquitoes and the civic body could not do anything to prevent breeding in these places. Moreover, about 30 percent of the overhead tanks in the city were so designed that they were unapproachable.

The civic body now insists that wells, overhead tanks and sumps be sealed. It has approved designs for the covers for these structures and would supply them at a subsidized rate of Rs 300. People seeking approval for new building plans will have to pay Rs 400. The official pointed out that sealing also prevented pollution.

The Corporation has already served notices to nearly one lakh homeowners to mosquito-proof their wells and overhead tanks. The civic body was also taking steps to mosquito-proof water storage facilities in its buildings and in other Government institutions.

A joint effort involving the civic body and the Malaria Research Center (MRC) was already underway to control breeding of mosquitoes in waterways using biocides. Two strains of biocides were being sprayed in selected stretches of the Cooum and Otteri Nullah. The Corporation took care of the operational work while the MRC monitored the results.

## Malaria, Gastroenteritis Hit Adivasi Tribals

### Over 20,000 Affected

93WE0560A Bombay THE TIMES OF INDIA  
in English 6 Aug 93 p 5

[Text] Thane, Aug 5—Over 20,000 tribals living in 27 villages have been affected by malaria and another 1,500 have fallen prey to gastroenteritis.

Approximately 70 persons have succumbed to the twin scourges, a BJP delegation which visited these hamlets last week told newsmen here today.

According to Mr Om Prakash Sharma, party national council member, Jawhar and Mokada talukas are reeling under an unprecedented epidemic which is almost a replay of the course it took last year.

The primary health centers in Adivasi areas are full with patients coming down from remote areas. With the rust of PHCs, the health services have gone awry. Since only 30 patients can be accommodated per center, they are now being transferred to cities and towns.

Mr Vishnu Sawra, BJP MLA, said the inconvenience caused to patients on account of the lack of medical care has once again exposed the lacunae in the health program. Six persons died in the Sakhra grampanchayat area as there was no medical treatment available.

The BJP has coordinated relief work of voluntary organizations to support the health department's program, Mr Sharma said.

Mr Chintamin Wango, party's district president, said if the government does not take immediate steps to control the epidemic it will take a heavy toll.

Last year over 360 deaths were reported because of this epidemic. Mr Sudhakar Rao Naik, then Chief Minister, had to rush to the Adivasi areas.

It was at his behest that Jawhar was made a district place with an additional collector to monitor various schemes for Adivasis. Ironically, the health department did not move there.

Although the additional collector's office was shifted to Jawhar, the employees refused going there and even went to the high court. The BJP delegation found that the hamlets were not connected by pucca roads and mobile medical vans were missing, too.

Talking to this paper Dr S.M. Sakpal, additional district health official, put the toll figure at 82. However, these casualties were from April up to the end of July.

Contaminated water was the main cause of death, he said. He refuted the charges made by the BJP that patients died due to lack of medicine.

Dr Sakpal also said Jawhar has been badly affected and 10 more medical squads have been pressed into action since yesterday.

### 200 Deaths

93WE0598A Bombay THE TIMES OF INDIA  
in English 21 Aug 93 pp 1, 5

[Article by Gunvanthi Balaram: "Death Roll Reaches 200"]

[Text] Jawhar (Thane district), August 20—It is a grim replay of the monsoon of 1992 in this hilly tract of lakes, teak forests and tribal settlements. Gastroenteritis and malaria have struck again, taking a toll of nearly 200 since the onset of the rains, according to local activists.

The government, however, pegs the deaths roll in the Palghar-Jawhar-Mokhada-Wada region at only 85.

Moreover, while district health officials insist that the epidemic is under control, many patients continue to throng local private clinics and primary health centres, even as others languish in their rustic homes. The current scourge also belies the state's claims of having boosted transport and health facilities after last year's epidemic.

"The epidemic is as grim as it was last year, and we are only halfway through the monsoon," proclaim over-worked private practitioners Dr Sudhakar Patil of Vikramgarh and Dr Chandrashekar Pathak of Mokhada. This year, Jawhar has been bitten more by the gastro bug, while Mokhada is down with malaria, they reveal.

Palghar and Wada talukas (with 23 and six deaths respectively) are afflicted by both, but the death rate is lower, perhaps because health awareness as well as communication and transport facilities are somewhat better there.

A tour of the region is revealing. The 30-bed Jawhar rural hospital has 55 gastro and dysentery patients at present. Ten persons were brought in when this reporter visited the hospital on Wednesday. They have been accommodated in makeshift wards.

Over the last 3 months, 600 patients (six of whom died) have been treated for waterborne disease. Official records show 53 gastro deaths in Jawhar taluka since April, with 19 victims in the first 19 days of August.

But the "real" toll is much higher, because several deaths have occurred in remote hamlets, according to local activists. For instance, there have been six gastro deaths in the last 3 weeks in a single hamlet, Peeparpada, in Jawhar's worst-affected pocket of Nyahala. They died even as a makeshift isolation ward was being set up in the nearby village of Nyahala Budrug.

Of the 196 Adivasis who live in Peeparwada [as published], 101 have had severe gastroenteritis this season, says Nyahala's deputy sarpanch Janu Kurda, as we trek



2 km uphill to reach the tiny hamlet of thatch-roofed, mud-walled huts, there being no motorable road to the hamlet.

The village well, which had not been disinfected for over a year, got a dose of Teeceel (a water purifier) only a few days ago, after Pragati Pratisthan, a local non-government organisation (NGO), raised a stink.

Twenty-five km away, in Vikramgarh, the public health centre (PHC) reports only six deaths this season, while local folk say the toll is well over 50 in a 10-km radius, with August claiming 25. In fact, in the interior village of Sakhara, 9 km away, there have been seven gastro deaths there over the last month.

"The government opened an emergency ward in the local school and deputed one doctor a fortnight ago, after we had lost three young ones," cries sarpanch Kisan Mahadu Gavit. "But the doctor left on Tuesday, even as another youth died. What do we do now, with the disease still raging?" he asks. "We will probably die before we reach the nearest clinic."

Indeed, given the dreadful transport system in the area, many ailing villagers have failed to make it to the clinics, points out Mr Arvind Mardikar, a social worker and college lecturer in Wada. And those who manage to reach the nearest PHC or sub-centre, more often than not find it woefully ill-equipped. [passage omitted]

In fact, three out of 19 gastro patients in Vanganpada have died during the last fortnight because the PHC could not give them the required drugs. "There was no Aspirin, Paracetamol or Chloroquin for several days, not even spirit or Dettol," admits Dr Satish Ranadive, who took charge only a few days ago.

"But some Tetracycline and saline arrived on Tuesday," he says. But things at the centre are still clearly a mess—there is neither water supply nor a refrigerator to preserve drugs.

"Little wonder then, that most doctors don't want to work in such conditions," remarks Mr Clyde Misquitta, a farmer who divides his time between Bombay and Wada and is striving to set up an ambulance service in the tribal area with the help of affluent farmers.

"The conditions here are difficult, both for the doctors and the patients," adds Fr Oscar Pereira of the Jesuit House in Manor, who works with the tribals of Palghar.

### **Cholera, Gastroenteritis in Marathwada Region**

93WE0562A Bombay THE TIMES OF INDIA  
in English 24 Jul 93 p 3

[Text] Aurangabad, Jul 23—Gastroenteritis and cholera have affected more villages on the banks of the Godavari River in the Marathwada region this year.

Officials of the health department said that gastroenteritis had so far claimed 48 lives and there were over

15,000 cases. Cholera claimed four lives and there were over 800 cases in the region.

## **IRAN**

### **Typhoid Fever, Tuberculosis Outbreaks Reported**

93LA0232Z Tehran JAHAN-E ESLAM in Persian  
4 Aug 93 p 2

[Text] As a result of polluted drinking water in the village of Shutavar, a suburb of Kohkiluyeh, tuberculosis and typhoid fever have spread in this village.

The drinking water and water for livestock in this village, which has a population of more than 2,000 people, is provided from a spring that is located along a sewage route.

According to the opinion of experts, because this water is 100 percent polluted, it is unusable for animals.

According to one of the residents, every year several children die in this village as a result of tuberculosis, typhoid, and digestive infections.

He added: This village, which is 75 km north of the city of Kohkiluyeh, has only one clinic, which lacks primary care facilities.

He said: Despite the fact that most of the families residing in this village suffer from infectious diseases, because of poverty and the long distances, patients are incapable of seeking treatment.

'Abdolhamid, the deputy director of the health center of Kohkiluyeh, verified the spread of tuberculosis and typhoid fever in the village of Shutavar and mentioned the water in this village as the most polluted water in the Kohkiluyeh region.

Engineer Pedram, the overseer of the health projects of the Jihad of Kohkiluyeh and Boyer Ahmad, also said: Of the villages in this province, 40 percent lack healthy drinking water, and this is due to the shortage of funds.

### **Increase of Incidence of Hepatitis B Reported**

93LA0245Z Tehran JAHAN-E ESLAM in Persian  
16 Aug 93 p 5

[Text] In the last 2 years the number of people infected with hepatitis B (jaundice) in the municipality of Saveh has roughly doubled.

Hasan Moradi, the official in charge of the municipality of the Saveh blood transfusion station, announced this on Sunday. He said: In tests performed on 1,100 people this year, 55 were found to be infected with hepatitis B, while in past years this figure was no more than 25 to 30.

He said that one of the reasons for the growth of this disease in the municipality of Saveh is the inattention of health-care officials. He said: Despite that this organization is prepared to test all the city's businessmen and

factory workers, only the workers in a factory producing foodstuffs were tested, and four infected people in this factory were delivered to the health care and treatment network.

He emphasized the fact that this disease can be transmitted to the infected person's blood via contaminated food, and that it is necessary to test all those who are involved in any way with the preparation, production and distribution of food.

#### **Cholera-Like Disease in Sanandaj Brought Under Control**

93LA0240Z Tehran SALAM in Persian 2 Sep 93 p 15

[Text] Sanandaj—IRNA. The *altur* disease, resembling cholera, which spread in early Shahrivar [22 August-23 September] in the cities of Sanandaj and Divandarreh because of the limited consumption of unsanitary water, has been brought under control through an around-the-clock effort by the health-care centers in the province of Kordestan.

Dr. Shokr Reza'i, deputy chief for health care in the province of Kordestan Health Care, Treatment and Medical Education Organization, told IRNA's correspondent: Patients infected with *altur* were quickly identified by the province's health care center and were placed under treatment in the Qods and Pediatrics hospitals in Sanandaj. He did not mention the exact number of people infected with this disease, but he added: This will be announced in the next few days.

He said the reason for the spread of this disease was bacteria resembling cholera in the runoff water in the park wells and the sewers in some parts of Sanandaj and Divandarreh. He said: A small number of people became infected with this disease by drinking this kind of water.

He said: Following the spread of this disease the Qods and Pediatrics hospitals in Sanandaj were put on alert, and through the creation of staffs to fight *altur* in the health care centers of the province of Kordestan, those infected were identified and placed in treatment.

He added: In the cities of Sanandaj and Divandarreh, where this disease has mostly spread, the unsanitary water has been brought under control and with the cooperation of the Water Affairs Office, the waters in these two cities have been chlorinated up to standard, and the consumption of unsanitary water has been prohibited.

The deputy chief for health care in the province of Kordestan Health Care, Treatment and Medical Education Organization added: Following the spread of this disease, the province's health care centers have made the people aware of this disease through the media and by putting up warning signs, and they have given them the necessary health care training.

He said: With the campaign that has been carried out against the cholera-like disease, so far the number of

people infected has gradually decreased and in the coming days this disease will be completely eradicated in the area.

#### **MOROCCO**

#### **Cholera, Diarrhea Outbreak Linked to Drought**

93P50302A Rabat AL-MITHAQ AL-WATANI in Arabic 15 Jul 93 p 1

[Text] The extreme summer heat that has caused the drought plaguing Morocco for 2 consecutive years has also led to an outbreak of a number of illnesses. The most serious of these are diarrhea and cholera, afflicting citizens mainly in the countryside and villages where there is no treated drinking water.

Diarrhea has been the cause of 18,000 deaths annually among children. An average of 50 victims die each day, usually children under 5 years of age. The reasons behind this outbreak of diarrhea are varied; however, the most common cause is the introduction of bacteria into the intestines via unclean hands, contaminated foods, unwashed fruits and vegetables, non-pasteurized or unboiled milk, or polluted water.

Causing the greatest concern and anxiety now, however, is the appearance of cholera in Morocco. As of 11 July, 136 cases have been reported, four of whom (3 percent) have already died. Seventy-five of the cholera cases, or 55 percent, appeared unusually early last June in Khemisset; 31 cases have been reported in Tanger; another 15 cases appeared in Kenitra, 6 cases in Sale, 5 cases in Sidi Kacem, and one case each in El Jadida, Meknes, and Khouribga. One additional case is reported to have been contracted in the holy places during hajj.

In reality, the elimination of this disease has not yet been realized, despite the promises previously made, primarily because the eradication campaigns have not been carried out evenly across the country. This calls for a revision of the methods employed to combat this disease. If everyone agreed on the importance and effectiveness of prevention in this domain, as in other areas of disease control, and recognized the role played by polluted water in causing this disease, then surely the following two facts would be acknowledged:

First, a number of villages in the countryside have no public potable water network. This forces inhabitants of these places to search for water from other sources, such as wells and springs. But the drought that has parched the land for two years now has made these sources of water very scarce, particularly in the countryside. It is this that has driven the inhabitants of these areas to make use of any water they can find, regardless of its purity. In view of this, a preventative campaign under these conditions would be considered futile, since citizens cannot treat water supplies that do not exist. Therefore, it is up to the authorities to devise other means of preventing this disease among the inhabitants

of these rural areas; however, there are no tribunals with authority to legislate the utilization of water and its systematic distribution in the countryside and villages via safe reservoirs and potable water networks.

Second, given that prevention is preferable to treatment, it remains necessary and important to concentrate on preventative measures. This is also important in view of the strained economic and financial situation of the country, given its "third world" status and the attendant requirement to make numerous economic adjustments in order to assure its financial equilibrium. In this respect, the strategy of prevention is not only considered a way of eliminating various diseases and epidemics, it also has a salubrious effect on the national treasury and the pocketbooks of citizens who have to pay for medical treatments that often are ineffective.

In any event, no preventative strategy will be effective or advantageous if it excludes an objective and realistic recognition of the living habits which differentiate rural and urban populations; and also, if it is not linked to a comprehensive development strategy for all of the different parts of the country.

## YEMEN

### 'Emergency' Declared in al-Hudaydah Schools Due to Cholera

PM2910122493 London AL-SHARQ AL-AW'SAT  
in Arabic 28 Oct 93 p 2

[Unattributed report: "Cholera Spreads in Several Yemeni Governorates"]

[Excerpt] Sanaa—Yemeni medical sources have said that local authorities in the city of al-Hudaydah have declared a state of emergency in schools and requested the closure of the city's schools. They have also launched a campaign against wandering street merchants selling food after more than 58 people, mostly pupils, contracted cholera.

The sources said that by yesterday six had died in al-Hudaydah. They added that "diarrhea and vomiting cases are widespread in Abyan and Rida' Governorates and the central areas of Ibb Governorate."

The sources said that by the beginning of this week nine people had died in Rida' and 11 cases had been admitted to 'Abd-al-Mughni Hospital. [passage omitted]

## RUSSIA

### **Russians Contract Cholera on Shopping Trip to Turkey**

PM3009122593 Moscow IZVESTIYA in Russian  
30 Sep 93 First Edition p 8

[Report by Lidiya Ivchenko: "They Went Shopping and Brought Back Cholera"]

[Text] A group of 30 people from the city of Orekhovo-ZUyevo near Moscow and two railcar conductors have been hospitalized in Bryansk after one passenger contracted cholera. The tourists traveled to Bulgaria and then to Turkey to shop. One of them felt ill in Istanbul, where he was given first aid. But at the Moldovan border city of Ungeny he had to be hospitalized. The medical services in the next Russian cities on the train route were notified. In Bryansk the car carrying the tourists was unhitched and the entire group of those who had had contact with the sick man were put under observation. It revealed four more people with the disease...

Unfortunately this is not the first such case. The increase in the number of shopping tours, especially to countries with a bad epidemiological record, is putting our population at a constantly increasing risk of bringing in infection. We were told at Russia's State Sanitary and Epidemiological Inspectorate that work to prevent the "import" of dangerous diseases has been carried out with tourist firms and transport services.

### **Most Cholera Victims 'Infected Abroad'**

PM2709104593 Moscow KRSNAYA ZVEZDA  
in Russian 21 Sep 93 p 1

[Report by ITAR-TASS correspondent Anna Banina under "From Our Newsdesk" rubric: "We Are Being Paid a Visit by...Cholera"]

[Text] The number of cholera victims in Russia could increase. This time the vibrio was probably brought in from Bulgaria. ITAR-TASS' correspondent was told by the State Committee for Sanitary and Epidemiological Supervision that a Russian citizen who had left Bulgaria by train had shown the symptoms which usually accompany cholera. A group of Russian tourists was traveling in the same car. Specialists now have to determine whether the intestinal illness present in the patient is indeed cholera.

For the time being the statistics for the incidence of cholera in Russia remain the same: Fifteen patients and eight carriers of the cholera vibrio. Of these, 11 patients and five carriers were infected abroad.

### **Physician Supplies Diphtheria Incidence Data**

PM1810160993 Moscow KOMSOMOLSKAYA  
PRAVDA in Russian 15 Oct 93 p 6

[Unattributed report: "Diseases"]

[Text] In the past month no cases of the plague or cholera have been registered. But! The situation concerning diphtheria is very serious. In the past eight months of this year 5,892 cases of diphtheria have been registered, and of these 1,468 were children. In the space of seven months, 125 people have died. Parents! Do not keep your children from being vaccinated, do not risk their lives. The main state public health physician has issued a decree on carrying out mass vaccinations, because adults must be inoculated against diphtheria every 10 years. A total of 995 people have been taken ill in Moscow in the past 8 months, and 206 of these were children. A total of 56 people have died, including four children. In St. Petersburg 1,148 people, including 225 children, have fallen ill, and 37 people have died, including five children. Vaccines are available at health centers at your place of residence.

### **Diphtheria Claims First Victim in Mordovia**

LD3110195593 Moscow Russian Television Network  
in Russian 1700 GMT 31 Oct 93

[Summary] Reporting from Saransk, correspondent N. Vechkayev said diphtheria had claimed its first victim in Mordovia, a mother of two from Saransk. The republic's Health Ministry has ordered preventive treatment for adults and children, but there is a shortage of vaccine. L. Terentyeva, the city's chief epidemiologist, said in an interview that after about 25,000 people had been vaccinated with reserve stocks, there was no vaccine left in Saransk.

### **Eight Diphtheria Cases Reported in Yeysk**

PM1210130193 Moscow KOMSOMOLSKAYA  
PRAVDA in Russian 12 Oct 93 p 1

[Valeriy Ivanov feature: "Chronicle of Emergencies"]

[Excerpt] Yeysk— Eight cases of diphtheria, including two with a fatal outcome, have been reported in the city of Yeysk, Krasnodar Kray. As reported by the State Committee for Emergency Situations Press Service, four people are now in hospital.

### **Diphtheria Epidemic Reported in Upper Volga Area**

LD2110195193 Moscow ITAR-TASS in English  
1722 GMT 21 Oct 93

[By ITAR-TASS correspondent Aleksandr Kharchenko]

[Text] Tver October 21 TASS—An epidemic of diphtheria broke out in the Upper Volga area early this autumn. Dozens of cases have been registered in the Tver region since the beginning of September. Five people are already dead. TASS learnt on Thursday.

According to the regional sanitation and epidemiological centre, the situation is especially alarming in the city of Tver, where 51 cases of the disease have been already



registered. Incidence rate among children has considerably increased, and presently they account for 27 percent of all those infected with diphtheria.

Nikolay Korgov, the centre's deputy head physician, reported that one third of the infected had not consulted doctors but engaged in self-treatment, which entailed grave complications. Apart from them, there were a few people who declined to be hospitalized. Most of the adults infected with diphtheria had not been inoculated against diphtheria. With all this in view, the regional sanitation and epidemiological centre addressed the residents with pieces of advice about what they should do to avoid the disease.

#### **Tyumen Appeals for Vaccine as Diphtheria Spreads**

*LD3110192093 Moscow Russian Television Network in Russian 1700 GMT 31 Oct 93*

[From the "Vesti" newscast]

[Text] The emergency commission for the fight against diphtheria in Tyumen has demanded that the oblast center of the state epidemic monitoring agency provide the city with anti-diphtheria vaccine immediately. In the last week alone, 24 people have gone down with diphtheria there. Since the beginning of the year, 245 cases have been recorded, of which three have resulted in death. With the increase in the incidence of the disease the shortage of vaccine is becoming catastrophic. The vaccination of all the 600,000 residents of Tyumen is currently under way. Special medical teams are visiting the city's enterprises and institutions

### **ESTONIA**

#### **Jaundice in Rakvere Area Continues To Spread**

*94WE0026A Helsinki HELSINGIN SANOMAT in Finnish 1 Oct 93 p 6*

[Article by Jorma Rotko: "Jaundice in Estonia Still Spreading"]

[Text] Tallinn—In the surroundings of the town of Rakvere, about 80 km east of Tallinn, a severe jaundice epidemic continues. It has already lasted for over a month. A while ago officials reported that the epidemic was subsiding. Now it is reported that already more than 600 people have become ill, and it is thought that the peak of the epidemic is yet to come.

Control over the disease is hindered by poor hygiene. The town of Rakvere has not had means to supply dwellings with heat and hot water. On Thursday [30 September] the town council scraped even the last shillings from the bottom of the chest to provide hot water for homes. In Rakvere it is recommended that water be boiled on electric stoves, but not everyone has been able to afford even that.

The basic causes of the epidemic are: the Soviet sewer system, which lets feces drain into the groundwater, and poor purification of household water.

According to doctors, it is best for a tourist planning a visit to western Virumaa to get a hepatitis vaccination.

### **LITHUANIA**

#### **888 Blood Donors in Vilnius Infected With Viral Hepatitis**

*AU2110203193 Kiev HOLOS UKRAYINY in Ukrainian 20 Oct 93 p 5*

[Nadiya Doronina report from Vilnius: "Retribution"]

[Text]

#### **Caution**

[passage omitted] At the Vilnius Republican Center of Blood "Kraujas" 888 donors were infected with the hepatitis virus during a procedure of plasmapheresis. Specialists at the republican clinic for infectious diseases noted even earlier that the majority of those who contracted viral hepatitis and underwent treatment at their hospital were former donors. That is why they decided, back in 1992, to study the donors' blood available in "Kraujas." The results of the studies were so unexpected that it was hard to believe them. For that reason, another study was made. This time, the samples of blood were sent to a medical microbiological laboratory at one of the Swedish universities. This time, the results could not be questioned. The situation was even further aggravated by the fact that the donors' blood had not been removed in time and it had been administered to more than a dozen people.

The Lithuanian Ministry of Health has adopted a plan for eliminating the consequences of the spread of hepatitis among donors and has implemented it in a peculiar way. These people were not treated with excessive consideration—they were no longer needed. According to one of the victims, they were simply sent away from the Republican Center of Blood, because their services were not needed, and were ordered to go to the hospital for infectious diseases for treatment. The donors cannot even sue the criminal doctors who infected them: There is no appropriate legislation.

### **UKRAINE**

#### **Odessa Said To Be Leader in Spread of Infectious Diseases**

*AU2010134393 Kiev HOLOS UKRAYINY in Ukrainian 16 Oct 93 p 4*

[Heorhiy Vorotnyuk report from Odessa: "Typhoid Fever Is the Last Thing We Need"]



[Text] Odessa's unique feature is not only its cheerful disposition, but also the fact that it invariably occupies the first place in Ukraine with regard to the spread of dangerous diseases. We are not talking about the past plague epidemics or more recent epidemics of cholera, but about today's afflictions. One-half of all of Ukraine's recorded HIV-positive persons and persons with full-blown AIDS live in Odessa. From time to time, outbursts of diphtheria occur in the city. At present, there is a new adversity—six cases of typhoid fever have been recorded. Medics are taking urgent measures to prevent the spread of the disease. Of course, this is extremely necessary. However, at the same time, residents of Odessa are quite worried and they also formulate the question like this: It is time that state structures and local authorities look into the reasons of such unwanted "championship" as thoroughly and as deeply as possible in order to prevent the afflictions.

#### **Sharp Increase in Number of Diphtheria Cases**

LD0910211693 Moscow ITAR-TASS World Service  
in Russian 1540 GMT 9 Oct 93

[By ITAR-TASS correspondent Yefim Shvartsman]

[Text] Odessa, 9 Oct—Two children and two adults dead and 70 people registered as patients are the grim statistics of the return of diphtheria to Odessa Oblast. Instances of the disease are up sharply in neighboring areas: Nikolayev and Kherson Oblasts, the Crimea, Ivano-Frankovsk, Poltava, and Kiev Oblasts, and in Kiev itself.

Medical statistics show that the diphtheria situation throughout Ukraine has sharply deteriorated. Nearly 1,800 cases have already been recorded, and over 50 people have died of the disease.

Instances of diphtheria in Ukraine have doubled in adults compared to last year's figures and increased by 50 percent in children. Because of this, the Ukrainian authorities and health-care agencies are taking emergency action to combat the spread of the disease.

#### **Diphtheria in Kiev Leads Sanitary Inspector to Discourage Travel There**

AU2309130993 Kiev URYADOVYY KURYER  
in Ukrainian 21 Sep 93 p 1

[Text] Ukraine's Ministry of Health held a meeting of the Operational Headquarters for Questions of Fighting Diphtheria. This year, in Ukraine, 54 persons, among them 17 children, have died from the disease.

The situation regarding this disease is particularly serious in Kiev, in Kharkiv Oblast, and in the Crimean Republic, which account for almost 50 percent of all cases registered in the country.

Ukraine's chief sanitary inspector Viktor Mariyevskyy pointed out in an interview for the NOVYNY Television and Radio Broadcasting Agency that antidiphtherial vaccinations remain the most efficient way of combating this infectious disease. They must be administered, on a compulsory basis, to all children up to the age of 14, persons within high-risk groups, medics, school and kindergarten teachers, and people working on the public transport and in the trade sphere.

The chief sanitary inspector requested citizens of Ukraine to refrain, unless absolutely necessary, from trips to those regions where the situation with regard to diphtheria is complicated. This mainly applies to the capital of Ukraine.

## FINLAND

**Finland Sees Disease Threat From Russia, Baltics**

94WE0026B Helsinki HELSINGIN SANOMAT  
in Finnish 1 Oct 93 p 6

[Article by Paivi Repo: "Doctors Warn: Diseases That Had Become Extinct in Finland Will Spread Again From Russia if Vaccinations Are Neglected"]

[Text] "If Finnish children are not vaccinated against polio, which had disappeared from Finland about 20 years ago, polio will spread here like an epidemic from Russia," warns Jukka Suni, physician specialist at the Aurora Hospital. In Finland polio is extinct, but in Russia wild strains of the polio viruses are found continually.

Polio, known as infantile paralysis, occurred in Finland as an epidemic every 4 or 5 years until the beginning of the 1960's. The disease disappeared as a result of vaccinations. For many, the symptoms resulting from polio were thought to be from ordinary diarrhea, but in some of these diarrhea patients, the disease struck the roots of the nerves near the spinal cord. This resulted in paralysis of the limbs. Sometimes paralysis occurred in the respiratory muscles, which resulted in death.

There is no known cure for polio, only preventive vaccine, even today.

People staying in Russia for a long time should get a new vaccination every 5 years. For those visiting for a short time or staying in the homeland, a booster every 10 years is sufficient. Almost all Finns received a polio booster in a sugar cube 8 years ago.

Also, other kinds of childhood diseases that are already extinct in Finland are continually seen in Russia and the Baltics, and that is why vaccinations should be taken care of, urges Jukka Suni.

Now 99.5 percent of Finnish children have been immunized. If the vaccination rate of children falls below 90 percent, diseases like German measles, mumps, and measles, which became rare during the 1980's, will become common in Finland again. They still occur in Russia and the Baltics.

In Finland two cases of diphtheria have been seen this year, and the disease had been contracted in Russia. During the summer more specimens of suspected diphtheria have been studied than before.

The diphtheria epidemic that continues in Russia and Ukraine will get worse during the winter, and then the situation will probably improve slowly, thinks Matti Jahkola, director of the laboratory at the Institute of Public Health.

Just in Russia, 4,700 people contracted diphtheria during the first 7 months of this year, and in St. Petersburg, 1,140 cases were reported during the first half of the year. The disease has killed 27 residents of St. Petersburg this year.

Only 70 percent of Russian children have been vaccinated against diphtheria, whereas the percentage among Finnish children is 99.

**Diphtheria Kills Especially Children**

In Finland diphtheria was last seen every year in the 1940's. During the peak years nearly 20,000 people a year contracted the disease, and about 1,000 died of the disease. Diphtheria killed especially children.

Diphtheria begins like tonsillitis with a sore throat, and parts of the throat may be covered with grayish crusts. Swollen throat and excessive mucus secretion can suffocate the patient. During this first stage the disease can be treated with antibiotics.

During the second stage, within a couple of weeks, diphtheria toxin spreads to various organs, and causes paralysis, neuritis, and endocarditis.

An antitoxin against the toxin has been developed, but the antitoxin injection has to be given to a patient early. Patients surviving the second stage may be left with permanent heart and nerve damage.

**New Tularemia Cases Reported in Savo Province**

93WE0582C Helsinki HELSINGIN SANOMAT  
in Finnish 1 Sep 93 p 12

[Article by Martti Heikkinen: "Tularemia Discovered in 30 People Already in Joroinen; Doctor Warns Hunters About Disease"]

[Text] Joroinen—Some 30 people have now come down with tularemia in Joroinen near the town of Varkaus. Several of the victims are small children.

Only a week ago the local health center recorded 20 cases of tularemia. It is suspected that there are, in addition, scattered cases elsewhere in Savo.

While more cases of people ill with tularemia have been cropping up nearly every day in Joroinen, Joroinen Health Center chief physician Martti Parnanen anticipates that the disease will gradually taper off in the town.

The symptoms of tularemia in the victim are constant fever, pains, and festering mosquito bites. The lymph nodes at the bases of the limbs, especially near the spot where the person was bitten, may be enlarged and tender.

Parnanen is warning hare hunters about the spread of the disease. According to him, hunters should wear protective gloves in those areas when they slaughter and salt down the hares they have shot.

### Spread of Disease Will Stop With Cold Nights

"Tularemia spreads to people chiefly through mosquito bites. All that is needed are a few cold nights and the mosquitoes and blackflies will die. In Joroinen, however, we can already speak of an epidemic since that many cases have appeared since July," Parnanen said.

Tularemia kills hares but, untreated, it is dangerous to people too. It can spread through the circulation of the blood to all of the body's systems or cause pneumonia.

According to Parnanen, the disease can, nevertheless, be very effectively treated with antibiotics. All those who get the disease usually seek treatment when the symptoms get worse.

### Authorities Act To Halt Rabies From Russia

94WE0013A Helsinki HELSINGIN SANOMAT  
in Finnish 20 Sep 93 p 6

[Unattributed article: "Rabies Threat at Southeast Border"]

[Text] The aerial spreading of bait, containing rabies vaccine for smaller carnivores, will continue during this month and next month, on the Finnish side of the southeast border. The area involved in the vaccination effort is a zone about 250 km long and 25 km wide, from Virolahiti to Ilomantsi. Thus, an effort is being made to stop the renewed spreading of rabies from Russia to Finland. The latest case of rabies in Finland was found on 16 February 1989, in Pyhtaa.

In charge of distributing the baits are the Veterinary and Food Administration, as well as the Veterinary and Food Department of the Ministry of Agriculture and Forestry.

The bait has been determined to be harmless to humans and animals. If the vaccine ends up in an individual's mouth, mucous membranes of the eyes, or in an open wound, the contaminated area should be washed, and a health center should be contacted in order to be on the safe side.

Although Finland officially is rabies free, the Veterinary Department has issued a reminder that all hunting dogs in Finland must be vaccinated against rabies. The same is true for official working dogs.

The vaccine given to a dog less than a year of age is good for a year. The vaccine lasts 2 years in older dogs. Vaccination is not recommended for puppies less than 3 months old. Dogs used for burrow hunting must be vaccinated once a year.

The Helsinki Central Laboratory of the Veterinary and Food Administration continues to examine carnivores for signs of rabies. Dead or diseased raccoon dogs, foxes, and other carnivores, which are found in the wild, can be sent to be examined, in so-called COD packages, where the receiver pays for postage.

Also local veterinarians and game officials may forward the samples.

Last year the Central Laboratory examined 576 animals for rabies. Not a single infected animal was found. Of the examined animals, there were 330 raccoon dogs, 25 dogs, 20 cats, 15 badgers, and 14 bats. In total, animals from 22 different species were examined.

## GERMANY

### Hemophiliac Association Criticized Health Office

94WE0054B Berlin TAGESZEITUNG in German  
8 Oct 93 p 3

[Interview with Rainer Grote of the Bonn-Based Hemophiliac Common Interests Association; place and date not given: "Deadly Official Blockade Policy"]

[Text] TAGESZEITUNG: How many contaminated blood products are still in circulation today?

Rainer Grote: If anything, one must assume that the number is very high. I think that the one-in-a-million risk factor cited by Seehofer is much too low.

TAGESZEITUNG: What do you say to the head-rolling in Bonn and Berlin?

Rainer Grote: That can only be a first step in the reappraisal of the entire blood scandal. We see our position confirmed, at any rate, viz. that there were serious mistakes made at the Federal Health Office and in the Federal Health Ministry. It was hard to prove this, but now, of course, there is proof to this effect on the table.

TAGESZEITUNG: What do you criticize the Berlin Federal Health Office for?

Rainer Grote: Already in 1982, the Federal Health Office had information on the connection between blood and blood products and HIV infections. The risk of infecting thousands of hemophiliacs was known and is also documented in a short notice appearing in the BUNDESGE-SUNDHEITSBLATT [Federal Health Journal].

TAGESZEITUNG: Then it took until October 1985 before the HIV test was finally prescribed for donated blood?

Rainer Grote: This test was already available in 1984. Instead of making it a binding requirement immediately, one waited and talked only of how unreliable this test allegedly still was. Also the inactivation of the blood clotting preparations, which were not made AIDS-safe until after October 1985, came much too late. Added to this is the fact that the introduction to the marketplace of noninactivated preparations was prohibited, but that the old medications, which were already in circulation and which would keep for 2 years, were not recalled.

**TAGESZEITUNG:** But mistakes such as this played no role in the dismissal of Grossklaus and Steinbach. The only thing involved here are the 373 cases that were hushed up. Do you think that the whole scandal and the policy of the Federal Health Office in the early phase of AIDS will now be reopened, as it was in France?

**Rainer Grote:** This will most assuredly become a topic of discussion in the days ahead. Herr Steinbach, who was dismissed the day before yesterday, was for years a responsible representative in the Federal Health Office, and he is responsible for the blockade policy which cost many hemophiliacs their lives. The consequences drawn by the Federal Health Office in the early phase of the AIDS crisis were practically nil. All that must be put on the table now, and the 373 cases should not be the end of it.

**TAGESZEITUNG:** How much compensation have those affected and their relatives received thus far?

**Rainer Grote:** Thus far, those affected have had to fight for their rights in individual negotiations with the pharmaceutical industry, and in that way have achieved agreement in their specific case. This takes place under the heading of property damage adjustment, since the concept of damages for pain and suffering inflicted would amount to an admission of guilt. Those affected were told: "You have approximately two more years to live," and the amount of money that the sick person would have earned in his or her profession during those two years could then be the basis for a settlement. For retirees or unemployed persons, the amount offered was just enough to cover burial costs. An appropriate compensation has not been given to this day.

## IRELAND

### Doctors Concerned Over Measles Cases Increase

94WE0039A London IRISH INDEPENDENT  
in English 27 Aug 93 p 4

[Article by Fergus Black: "GPs Concerned at Rise in Measles"]

[Excerpt] Doctors are concerned at the recent rise in the incidence of measles in certain parts of the country.

Irish College of General Practitioners Chairman Dr Michael Dunne yesterday urged closer cooperation between local health boards and GPs on vaccination for measles, saying the present outbreak suggested vaccination was not being delivered evenly through the community.

Earlier this week the Eastern Health Board reported a measles epidemic—particularly in the Dublin area—and said there had been a 13-fold increase compared with last year.

Also, the North-Eastern Health Board yesterday expressed concern over a measles epidemic in counties Cavan and Monaghan.

Board spokesman Dr Fenton Howell said the disease was running at between 12 to 20 cases a month—a major rise on last year.

Dr Dunne, meanwhile, said they were very concerned about the recent measles increase in certain areas of the country.

"Since the MMR vaccination was introduced in this country in 1988 there has been, until now, a noticeable fall in the outbreak of measles. The present outbreak suggests the vaccination is not being delivered evenly through the community."

Dr Dunne added that the MMR vaccine was traditionally given by GPs or local health nurses, but in some cases it was unclear whether a child had been vaccinated by the doctor or the nurse and some children were overlooked.

"An extensive list of all children in a GP's practice from which both doctors and health nurses could work would give an up-to-date picture of the vaccination uptake in the community—and immediately highlight any areas in need of special attention," he declared.

There was need for the "closest possible" cooperation between community care departments in the local health boards and GPs to ensure maximum uptake in vaccines around the country. [passage omitted]

## SWEDEN

### Hepatitis B on Increase Among Immigrants

94WE0033A Stockholm DAGENS NYHETER  
in Swedish 30 Aug 93 p 7

[Article by Kerstin Hellbom: "Hepatitis B Increasing Rapidly"]

[Text] The number of carriers of the sexually transmitted form of jaundice, hepatitis B, has greatly increased in Sweden in recent years. Slightly more than 3,000 carriers of the infection were reported last year. That is more than twice as many as in 1991.

Furthermore last year's figures represent a vast increase over figures for the 1980's, when only between 300 and 500 carriers of hepatitis per year were reported.

According to the latest statistics from the Infections Diseases Institute (SMI), the number of reported cases so far this year is still at the same high level as last year, or close to 1,427 confirmed reported cases during the first six months of 1993.



"The increase is related to increased immigration to Sweden. Most of last year's reported carriers of hepatitis B were Albanians from Kosovo," said Prof. Margareta Bottiger of the SMI.

"On the other hand, we have not seen any increase of hepatitis B among Swedes despite the major increase in the number of carriers of the infection in recent years. Quite the contrary: There is a slight downwards trend," she said.

Probably that is due to the fact that drug users, who formerly made up the majority of hepatitis B carriers, have become more careful about sharing needles owing to the risk of HIV infection.

Hepatitis B is one of several different variants of jaundice, that is, inflammations of the liver that are most frequently caused by a virus and can become chronic and result in cirrhosis of the liver and death.

It can be spread by blood and sexual contacts, but among adults who get infected it often heals on its own.

Children, on the other hand, become chronically infected, but today there is a protective vaccine that is administered to newborns.

Hepatitis D is also transmitted through blood but can only occur at the same time as hepatitis B. It is not common in Sweden.

Hepatitis A is spread as an intestinal disease through polluted water. Its symptoms are fatigue, feeling sick to one's stomach, and a temporary yellowing of the skin. But the disease is not chronic.

The A variety is hard to find in Sweden; only 20 or so cases are reported annually, but it is common in, for example, Asia and Africa.

Hepatitis C is spread through blood, and since in early 1991 there were good testing methods, many people have been infected through blood transfusions at hospitals. The risk of becoming chronically ill from hepatitis C is great. About 85 percent of drug users who shared needles are chronically infected.

In the past hepatitis E did not exist in Sweden, but this year the first four cases were diagnosed. The disease is spread through polluted water and has been the cause of major epidemics in Asia in particular but in Africa and Central America as well. The risk of person-to-person infection is small.

## UNITED KINGDOM

### Tuberculosis Reaches Epidemic Levels in Some Areas

93WE0558A London THE SUNDAY TELEGRAPH  
in English 8 Aug 93 p 5

[Article by Victoria Macdonald, health correspondent:  
"Children at Risk as Killer TV Makes a Comeback"]

[Text] Doctors have warned of an increase in the number of children contracting potentially-fatal tuberculosis. The highly-infectious disease is no longer confined to the normal at-risk groups, such as Asians, but is appearing in greater numbers in white children.

Their findings in this month's *Archives of Disease in Childhood*, are the result of a 15-year study in London's East End and will bring renewed pressure on all health authorities to provide comprehensive vaccination programmes—14 authorities no longer offer BCG vaccines to all children, contrary to Health Department advice.

TB, once associated with Victorian England, was steadily declining until the mid-80s. Uncorrected figures for cases reported to the Public Health Laboratory Service in Colindale, north London, in 1992 were 5,800, compared with 5,086 in 1987.

In some parts of the country TB has reached epidemic proportions, especially in inner-city areas. But until this study there had been no comprehensive research into how children were being affected.

Although the numbers infected are still small compared with adults, the doctors—from the Queen Elizabeth Hospital for Children in Hackney and St Bartholomew's Hospital in the City—were concerned that children were not being automatically investigated when a parent was diagnosed as having the disease. But of more significance, they say, is the disease's spread across the ethnic divide. Forty percent of the cases of Queen Elizabeth Hospital were non-Asian. Dr Helen Goodyear, in the paediatric department, said a better indicator may now be the type of urban area in which the children are living rather than ethnic origin.

The survey's findings have worrying implications for similar inner-city areas. Highly mobile populations make it difficult for medical authorities to maintain contact with infected patients. Newborn babies born into high-risk groups are supposed to be vaccinated before leaving hospital, but Dr Goodyear said early discharges meant many were being missed.

The routine BCG vaccination of 13 to 14-year-olds will pick up infected children but in the meantime the disease will have been passed onto those in close contact.

The health authorities which have stopped routine vaccinations are basing their decision on a 1983 survey of TB in England and Wales which showed a 35 percent decline over 5 years.

The Department of Health has ordered a detailed survey of TB notifications, but a spokesman said its advice to vaccinate school children remained. Authorities not adhering to this must have alternative arrangements for at-risk children.



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